FEB 1 1923

Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper. Published Weekly. Price 1s.

THE

MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—9TH YEAR. SYDNEY: SATURDAY, DECEMBER 30, 1922. No. 27.

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Table of Contents

ORIGINAL ARTICLES— PAGE.
"Suggested Amendments of Public Health Legislation in Queensland," by THE PUBLIC HEALTH SUB-COMMITTEE OF THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION 757

REPORTS OF CASES—
"Hæmorrhage in the Newly Born," by W. R. GROVES, M.D., B.S. 762

REVIEWS—
Protozoal Diseases 763
Yorkshire Moors and Yorkshiremen 764
The Claims of the Psycho-Therapeutists 764

LEADING ARTICLES—
The Use and Abuse of Alcohol 765

THE WEEK—
Fatigue and Susceptibility to Infection 766
Multiple Polypi of the Stomach 767

BRITISH MEDICAL ASSOCIATION NEWS—
Medico-Political 768
The First Ovariotomy Performed in South Australia 768
Nominations and Elections 769

MEDICAL SOCIETIES—
The Medical Sciences Club of South Australia .. 769
Medical Defence Society of Queensland 770

PUBLIC HEALTH— PAGE.
The Health of Queensland 771

OBITUARY—
Bernard Loughrey 773
Carlo Franceschi 773
Norman Edward Packer 773
William Henry Tomlins 773

UNIVERSITY INTELLIGENCE—
The University of Sydney 773

CORRESPONDENCE—
Intestinal Obstruction Caused by Meckel's Diverticulum 773

PROCEEDINGS OF THE AUSTRALIAN MEDICAL BOARDS—
New South Wales 774

BOOKS RECEIVED 774

MEDICAL APPOINTMENTS VACANT, ETC. 774

MEDICAL APPOINTMENTS: IMPORTANT NOTICE 774

DIARY FOR THE MONTH 774

EDITORIAL NOTICES 774

SUGGESTED AMENDMENTS OF PUBLIC HEALTH LEGISLATION IN QUEENSLAND.[1]

BY THE PUBLIC HEALTH SUB-COMMITTEE OF THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.[2]

INTRODUCTION.

THE sphere of medicine has enlarged greatly in modern times and we have advanced our work from the curing of the sick to the caring for whole populations in health as well as in disease. This conquest of public opinion is not the least of our later triumphs. By a trend of thought not difficult to follow, it is recognized that it is better to keep people healthy than to let them drift into disease with its attendant cost and misery. The principle has long been recognized in economic and industrial life. Legislation which regulates child-slavery in mines and factories, which safeguards life at sea or in mines or in dangerous trades or even upon the public highway, is analogous in every respect to what we desire to initiate and perfect in the physical life of peoples. Premature death, by an irony of nature, is on the lowest plane costly. Nature would have us understand that scientific humanitarianism pays and this urging of Nature has inevitably driven us to seek for life and happiness along the path of scientific investigation. Though we cannot increase the span of life, we can at least raise the average of its duration. The preventive medicine of half a century ago was crude, ignorant or taking no heed of the natural history of disease and the totally inadequate conceptions and methods of those days still obsess us, so that, in spite of education, much of our conception of infectious disease is a farrago of myths and magic, painfully paraded in our treatment of lepers and in our futile fumigations and in a lingering regret that we cannot cure or prevent disease by plumbing alone. Physiologists, pathologists, statisticians, epidemiologists have taught us that there is only one way, the right way, to deal with the preventive problem: a study first of the natural history of disease.

It is peculiarly fortunate that the life history of the diseases that attack man in groups large or small, infectious diseases, is known to a greater or less extent. Of them we have acquired a mass of knowledge on which to base our preventive methods. It was the establishment by experiment and observation of the parasitic nature of disease that gave us the clue to causes. Henceforward the elements, the moon and the stars, the air, miasmata and smells can never again be held sufficient to account for epidemic disease. These conceptions and the

[1] Read at a meeting of the Queensland Branch of the British Medical Association on November 3, 1922.

[2] The members of the Public Health Sub-Committee are the President and Honorary Secretary of the Queensland Branch, Dr. A. Graham Butler, D.S.O., Dr. E. S. Meyers, Dr. J. V. Duhig and Dr. S. F. McDonald.

methods they fathered must be swept out of our minds to give room to the truth.

The parasitic nature of infectious diseases is now an accepted fact and prevention must be based on a recognition and investigation of particular causes and generally on the conditions which make these causes operative, that is to say, that a system of prevention is unsound which neglects, firstly, to trace the source of the particular infection in any given case of infectious disease and, secondly, to eliminate the conditions which have laid the individual open to successful invasion by the infective agent. Preventive medicine is, therefore, the product of these two factors: the particular patient and the general conditions of his environment. From the summation of records of sources of infection we deduce principles capable of wide application. We are dealing with two phases of the preventive problem: patient and public. With the patient the medical adviser will deal; with the conditions which directly or indirectly contributed to his condition, the health service will deal. It is principally with the general conditions of infection that preventive medicine is concerned and the problem is comparatively easy in theory and difficult in practice only because of extraneous circumstances arising not always out of the scientific problem, but usually in its economic application.

We take as our principle that all infectious disease arises in some human or animal source and its spread is similarly through a succession of human or animal reservoirs graphically represented. Our mode of attack would naturally then be to dam the flow of infection either at its source or at the secondary reservoirs. We cannot too strongly insist upon this conception as being fundamental to all successful campaigns against infectious disease. Neglect of this principle has led to waste and inefficiency. This is obvious, since all the work of the last fifty years has been powerless to eradicate infectious disease. We have spent thousands of pounds and still have the diseases with us. Misdirected effort on unscientific lines is costly and wasteful, because it is quite useless. The defective plumbing theory of the origin of diphtheria or the bad drain theory of scarlet fever is fundamentally wrong and it is quite wrong also to blame the plumber if he is unable to cure our children of these diseases. It is likewise stupid to fumigate the dwelling of a meningitis or typhoid patient, when the infection can be shown to have been acquired from the throat of the mother in the one case or from the bowel or bladder of a dairy assistant in the other, but quite inaccessible to sulphur fumes. The method of attack is so obvious that there is no further need to lay emphasis upon it. A method which is bound to fail, is wasteful no matter how cheap, but one which is effective is cheap both relatively and absolutely as the increment in improved health well repays the outlay. Money well spent on sound lines is a good investment.

Infective Disease.

We set out in tabular form the infections and infestations with which a health service is called upon to deal, along with their sources and paths of attack.

Table I.—Diseases Grouped According to Direct Causes and Path of Infection.

A.—Contact
- Exanthemata
- Venereal Diseases
- *Ophthalmia neonatorum*

B.—Food and Drink

Infection Conveyed by (*a*) Flies or (*b*) Human Handling (Carriers):
- Typhoid Fever
- Paratyphoid
- Infantile Diarrhœa
- Dysentery
- Diphtheria
- Scarlatina
- Tuberculosis
- Measles

C.—Animal Carriers

(*a*) Animals Suffering from Disease:
- Glanders
- Anthrax
- Plague
- Hydatid Disease
- Tæniasis

(*b*) Animals as Intermediate Hosts:
- Malaria
- Filariasis
- Dengue
- Yellow Fever

(*c*) Animals as Vectors:
- Tetanus (and others)

D.—Human Carriers

(*a*) Secretions of Naso-Pharynx:
- Meningitis
- Polio-myelitis
- Polio-encephalitis
- Diphtheria

(*b*) Secretions of Lungs (Sputum):
- Tuberculosis
- Influenza
- Plague

(*c*) Bowel Contents:
- Enterica

E.—Accident

(*a*) Trauma, etc.:
- Puerperal Sepsis
- General

(*b*) Sanitary Defects:
- Anchylostomiasis
- Bilharziosis

E.—Ectoparasitic
- Lice, etc..

Our object then is to indicate (*a*) the principles on which regulations should be based and (*b*) the known facts and conditions affecting the contracting and spreading of each disease which should theoretically be most effective and which present practically the best possibilities for effective action.

It must be borne in mind that the external conditions conducing to the disease differ both in countries and localities, tropical or sub-tropical, town or country, and the regulations applicable, say, to England may be entirely inapplicable to North Queensland and, similarly, the regulations suitable and sufficient for Brisbane may be useless for Cloncurry.

The external conditions affecting the disease similarly may present racial and social differences, *e.g.*,

susceptibility of a hitherto non-infected race or exposure of a specially susceptible one, *e.g.*, children, young adults, to repeated or intense sources of infection.

Factors in Infective Disease.

1. The nature of the causative agent.
2. The life history of the causative agent:
   (*a*) Parasitic.
   (*b*) Saprophytic.
3. The point of attack and method of attack on the human organism.
4. Internal conditions of host affecting liability to contract the disease:
   (*i.*) Specific resistance:
      (*a*) Natural and inherited.
      (*b*) Acquired.
      (*c*) Artificial.
   (*ii.*) General resistance:
      (*a*) General health.
      (*b*) Other disease.
      (*c*) Chill, fatigue, starvation.
      (*d*) Continued infection or mass infection.
5. Infective cycle of the disease.
6. External conditions affecting disease incidence:
   (*a*) Seasonal.
   (*b*) Locational.
   (*c*) Social and vocational.
   (*d*) Communal.

Preventive Organization.

General Measures of Prevention.

(*a*) Limitation of opportunities for infection by the conditions of communal living (water and sewerage, town planning, housing, food supply, vermin destruction, *et cetera*).

(*b*) Individual and social conditions (standard of living, average education, food, alcohol, social habits, *et cetera*).

(*c*) Preventive inoculation.

Measures to Limit Infection from Cases.

(1) Diagnosis by a qualified medical practitioner.

(2) Notification to (*i.*) the public health department, (*ii.*) the local authority or (*iii.*) the responsible person.

(3) Action by (*i.*) the medical attendant, (*ii.*) the public health administration, (*iii.*) the local authority, or (*iv.*) the responsible person.

The duties of the public health service to the general practitioner should be (*i.*) the taking of all necessary measures immediately on receipt of a notification form, (*ii.*) the rendering of assistance in diagnosis when necessary and (*iii.*) the cooperation with the general practitioner in preventing the spread of disease.

As regards (*i.*), under existing regulations medical officers of health may be absolved from the necessity of personally visiting a patient suffering from infectious disease and the premises in which he resides.

The clauses of the regulations allowing this state of affairs strike at the whole efficiency of public health administration and have been the immediate cause of much fruitless effort and misunderstanding in the past. The evil effects resulting are as follows:

(*a*) There is a delay in the immediate initiation of measures to check the spread of infectious disease.

(*b*) The general practitioner is prone to think that medical officers of health are not interested in the work of prevention of disease.

(*c*) The general public do not receive any stimulus to attend to sanitary conditions, such as is provided by the mere presence of a competent medical officer of health.

(*d*) The local authority receives very little backing; in fact, it is looked on as a nuisance and not an authority at all.

(*e*) A slack medical officer may become a mere clerk, a poor cipher unable to fulfil the important duties of the office to which he has been appointed.

Very few general practitioners have ever seen a medical officer of health outstide the offices of the Department of Public Health.

As to (*ii.*), it is obvious that the medical officer of health, having the advantages of a well-equipped laboratory at his command, can assist the general practitioner in the diagnosis of doubtful cases, *et cetera*.

As regards (*iii.*), the knowledge of local conditions possessed by the general practitioner is at present wasted owing to the lack of personal cooperation on the part of the medical officers of the Department of Public Health. It is on such cooperation that the efficiency of a Department of Public Health must largely depend.

The duties of the general practitioner to the Public Health Department include (*i.*) prompt notification and (*ii.*) the active cooperation (in all measures to prevent spread of infectious disease) when asked for by the Department of Public Health.

Notification.

"No health service can effectually control infectious disease without a knowledge of where and under what circumstances it is occurring" and, therefore, notification is the natural starting point for any investigation of epidemic, endemic or sporadic cases of infectious disease. It is, therefore, essential to a proper study of one epidemic or as a basis for our epidemiological theory of infectious disease over long periods and wide areas.

Notification is the essential link in the chain binding the practitioner to the health service. Both are powerless without it, since a health service working in the dark is useless and a general practitioner dealing with isolated cases is handicapped by lack of the knowledge acquired by the health service taking a broad survey of the facts.

The form of notification should be altered from the present cumbersome triplicate to something like that illustrated and the form sent to one authority only.

FORM FOR THE NOTIFICATION OF INFECTIOUS DISEASES.

(Name)	*The Infectious Diseases (Notification) Acts.*
	CERTIFICATE OF MEDICAL PRACTITIONER.
(Address)	BOROUGH OF .....
	To the Medical Officer of Health.
(Age).. *(Sex)*....	I HEREBY CERTIFY AND DECLARE that, in my opinion,
(School)	*(Name)* (1) .....
	(Address) (2) .....
	(Age)... *(Sex)*..... *(School)*.....
(Disease)	(3) is suffering from *(Disease)*.....
	(Date of onset).....
(Date of onset)...	*(Occupation)* .....
	(Signed).....
(Occupation)	*(Date)*.....
	Is it desirable to remove to Isolation Hospital?.....
(Date)	

(1) Name in full of person suffering from disease.

(2) Number or name of the house and name of the street or road and parish or place where person is resident. In the case of a ship, boat, tent, van, shed or other similar structure, the name or description of the dwelling and the name of the place where it is situate, should be given. The particulars given should be sufficient to enable the address given to be promptly found.

(3) Name of disease.

The cooperation which should exist between the general practitioner and the health service should be further enhanced if in return for notification the health service would from its notification data and statistics of causes of death furnish bulletins periodically on the following plan:

1. Epidemics.—Probable origin and mode of spread.

2. Endemic foci of disease.

3. Sporadic cases, with reference to (*i.*) seasonal incidence, (*ii.*) age incidence, (*iii.*) variations in virulence, *id est*, comparative death rate, and (*iv.*) cyclical prevalence.

Infective Cycles of Disease.

Having indicated what should be the working basis of administration we take in detail certain diseases in respect of their infective cycles, so as to secure a basis for scientific control.

Typhoid Fever.

The *Bacillus typhosus* spreads in the following ways:

(*i.*) From the intestine of the patient to the fæces and urine, thence by direct contamination to the hands of attendant or by indirect spread from the utensils. The infection passes to the food and thence to the mouth of a susceptible person.

(*ii.*) From the intestine of the patient to the fæces and urine, from which flies carry the infection to the food. It then passes to the mouth of a susceptible person.

(*iii.*) From the intestine of the patient to the fæces and urine. The excreta contaminate the water supply and the infection in the water passes to the mouth of a susceptible person.

(*iv.*) From the intestine and gall bladder of "carriers" to the fæces, thence either by direct contamination to the hands or indirectly from utensils to food and to the mouth of a susceptible person.

(*v.*) From the urine of a "carrier" by direct contamination of his hands to food and thence to the mouth of a susceptible person.

The possibilities for action include in the first place the creation of conditions inimical to the spread of the disease, such as (*a*) good sanitary system, (*b*) a control of the water supply, (*c*) anti-fly measures, (*d*) a control of the milk and food supply and (*e*) the promotion of conditions favouring an early medical diagnosis.

In the second place there is the possibility of increasing the resistance of the community by breeding a race of immunes by allowing typhoid susceptibles to die, by allowing a wide spread of mild infection and by artificial inoculation.

The third measure involves the control of cases of the disease. This may take the form of early diagnosis and early notification, sufficient isolation of patients, control of contacts (attendants, *et cetera*), the disinfection of fæces and urine and the prevention of fly contamination, either by preventing the access of flies to fæces or by preventing the access of flies to food.

The fourth form of action involves the control of "carriers," including (*a*) contacts (with early infections), (*b*) unrecovered patients and (*c*) symbiotic "carriers."

The practically possible measures seem to be (*i.*) the installation of a sewerage system, (*ii.*) the installation of a water supply, (*iii.*) the diagnosis and notification of infections and "carriers," (*iv.*) the control of "carriers," (*v.*) the fly control, (*vi.*) the control of the patient, including the immediate disinfection of fæces and urine, (*vii.*) the control of susceptible contacts (with early infections), (*viii.*) inoculation and (*ix.*) the disinfection of premises.

Diphtheria.

The bacillus of diphtheria may travel in the following ways:

(*i.*) From the throat of the patient to his saliva and thence from his lips to the throat of a susceptible person kissing the patient.

(*ii.*) From the throat of the patient to his saliva and thence by droplets exhaled or coughed to the throat of a susceptible person.

(*iii.*) From the throat of the patient to his saliva and to objects sucked by him; thence to the mouth of a susceptible person.

(*iv.*) From the throat of the patient to his fingers. The fingers carry the infection to external objects, thence to the hands of a susceptible person and ultimately to the mouth of the susceptible person.

(*v.*) From the throat of the patient to his fingers and to food; thence to the mouth of a susceptible person.

The infection may also pass by means of flies or of fomites.

The following are the possibilities for action in order of practical importance:

1. Diagnosis and notification laboratory arrangements.
2. Isolation, control and treatment of the patient.
3. Control and treatment of contacts (with early infections), Schick test.
4. Correction of social habits of children or adults (kissing, sucking articles in common).
5. Remedying of overcrowding of schools and houses, *et cetera.*
6. Tonsil enucleation in the infected and the uninfected.
7. Diagnosis, treatment and control of symbiotic "carriers."
8. Preventive inoculation (toxin-antitoxin mixture).
9. Inspections of house, *et cetera.*

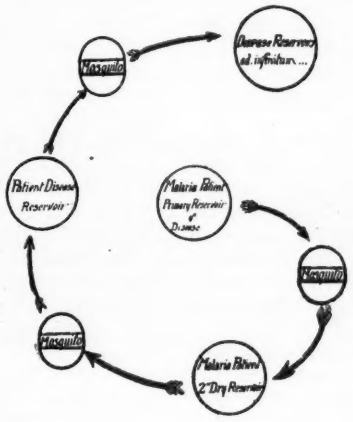
Polio-Myelitis and Polio-Encephalitis.

The infection may pass:

(*i.*) From the throat and nose of the patient or a "carrier" to his nasal secretion and saliva and thence as in diphtheria.

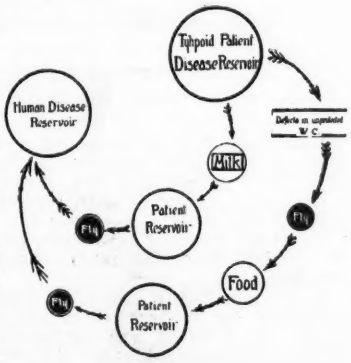
(*ii.*) From the fæces of the patient or of a "carrier."

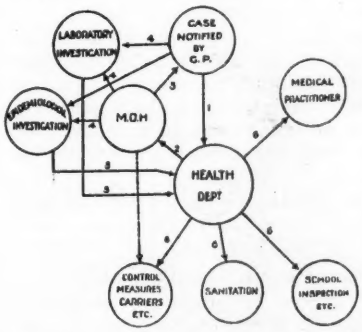
In these diseases the essential feature of the campaign, in the light of our present knowledge, seems to be the detection and adequate control of unsuspected "carriers," abortive infections or apparently healthy contacts.



Influenza.

The infection may pass from the throat or lungs of the patient or of a "carrier" to his nasal secretion or sputum, thence in droplets expelled to the throat of a susceptible person.





The difficulty in this disease is the fact that the infective agent is not known and is, therefore, incapable of isolation from patients or carriers. Therefore the controllable factor at present is simply intimate contact with actual patients, patients during the incubation stage, convalescents and "carriers."

Regulations Under the Health Act.

Having discussed the basis for regulations, we would like to indicate what we think to be the plan on which they should be written.

The regulations under the *Health Act* of Queensland are unsuitably printed on numbers of loose sheets, like Sybilline leaves, *ludibria ventis,* couched in a jargon which makes their reading a painful burden, headed off with a proclamation which is waste of time, money and printer's energy. There is a lot of overlapping and repetition, regulations applicable to a group of diseases being repeated *ad nauseam* whenever one of the group is dealt with.

The remedy we conceive to be as follows: The regulations should be written in English, in pamphlet form, interleaved with blank pages on which amendments could be pasted. Repetition should be avoided by drafting them in the manner indicated below. Should amendments become necessary from time to time, they could be issued on slips of paper just large enough to contain the words and no larger. Each or any regulation could be followed by notes explaining its rationale or import; in this way cordial cooperation is assured.

The pamphlet would be in three parts.

In the first there would be regulations on general lines which are commonly applicable to all infectious diseases, dealing with action to be taken under the following heads:

The duty of notification by the practitioner; instructions as to temporary measures to be taken; the isolation of patients and contacts.

The duty of the medical officer of health or representative of the Health Department to visit and investigate the source of infection, to secure laboratory aid in diagnosis and opinion as to infectivity of contacts or inmates of dwelling.

The notification of results of investigations to the practitioner. General instruction as to the restrictions of inmates and attendants according to the special cirmustances of the disease. General instructions as to the control of sources of infection, such as infected food and drink, infection which may have come from schools, institutions, barracks, *et cetera.*

Instructions as to method of dealing with known "carriers" and provision for rendering them harmless.

In the second part there would be the sanitary regulations, dealing with sanitation in its relation to infectious diseases. These should include a provision for notification of insanitary conditions which existed anterior to the occurrence of disease and contribute thereto.

The Health Department should enjoin this duty upon the medical officer of health or his representa-

tive, a qualified sanitary inspector, who should report upon the suitability of dwelling for human habitation, overcrowding, ventilation, disposal of excreta, garbage *et cetera* by householder, facilities for fly, mosquito and vermin breeding, conditions under which domestic animals are kept, noxious weeds about dwellings, surface and sub-soil water drainage.

The medical officer of health should recommend to the competent authority, which should act on his advice in securing obedience to regulations under the above heads.

The third part would comprise regulations bearing directly on certain groups of diseases or on a single disease, such as diphtheria, meningitis, poliomyelitis and polio-encephalitis.

The control of these diseases depends on rapid diagnosis and check upon the spread of infection from its source. This is met by prompt notification, immediate response by the Health Department and rapid detection by laboratory means of the person or persons spreading the disease.

Regulations should be made to facilitate these measures, to secure isolation of patients and contacts and the provision of restrictions to render them innocuous. In diphtheria the whole question is complicated by (*i.*) the long duration in some persons of the "carrier" state, (*ii.*) the degree of virulence of the organism in the "carrier's" fauces and (*iii.*) the variation of results of repeated swabbings.

An extensive local epidemiological and laboratory investigation into these problems is necessary for securing a working basis, along with an experimental trial on a small scale of the results of Schick tests and preventive inoculation.

Regulations could then be passed, setting a period with a known fraction of error to isolation or quarantining of convalescents and "carriers" and on a time basis, loosening restrictions on their personal liberty, with certain safeguards as to avoidance of occupation, habits and contacts favourable to spread of infection.

On these lines the diphtheria regulations should be re-cast.

Relation to Enteric Infections.

Regulations to be effective should provide for (*i.*) the control of source of infection, usually a human "carrier" engaged in the distribution or preparation of food, (*ii.*) careful sewage disposal and (*iii.*) fly control.

As a corollary the strictest supervision should be secured over food handling and distribution and the exclusion of known "carriers" from any share in these activities.

The nursing of enteric patients should be conducted on the soundest scientific lines and instructions issued to that end. We do not consider the present regulation as to certification of non-infectivity of convalescents quite effective, being cumbersome and in many cases practically impossible. We consider it would be better to attempt to break the infective cycle in all or any of its paths.

An efficient health service requires tactful, scientific management. We have continually insisted on the need for close cooperation of all the units involved, the Health Department, the general practitioner, the medical officer of health and laboratory with the subsidiary units involved as local authorities, sanitary inspectors and the public generally. We feel that the time is coming when the medical officer of health should in this country assume the position of importance due to himself and the public. This would be enhanced if the position were adequately remunerated and were awarded only to men especially qualified by training and study. We feel that by scientific methods and by keeping pace with advances in knowledge the incidence and mortality of infectious diseases could be greatly reduced. And while thus formulating regulations to deal with each disease as it arises, the "better way" of true prevention must ever be given first place. The "wrong turning" of "too great concentration on costly and partial treatment of the end-results of the processes inaugurated by faulty environment" must never be permitted to divert us from the primary factors in national health, high standard of living and of education, equable distribution of wealth, scientifically designed and rigidly controlled conditions of housing and industrial development, widely conceived and resolutely carried out schemes of town development.

By these and by these alone is rendered possible the national and civic spirit on which, in the matter of health, as in every aspect of life, high endeavour and worthy achievement ultimately depend.

Reports of Cases.

HÆMORRHAGE IN THE NEWLY BORN.

By W. R. Groves, M.D., B.S. (Melbourne),
Honorary Surgeon, Kyneton Hospital, Victoria.

A healthy, full-time male infant, born two months ago after an uneventful labour, is the subject of this report. After birth the prepuce was retracted without difficulty; it was unusually easy in fact. When bathing the baby the nurse noticed some oozing from the cord and found occasion to tie it a second and third time. Also some bleeding was noticed from the penis. As this persisted I was sent for.

On examination I found the cord uniformly suffused with blood, but as there appeared to be no external hæmorrhage, the dressing was not disturbed and no further hæmorrhage occurred here. As regards the penis there were two bleeding points in the frænal region, one on the glans and one on the subjacent retracted prepuce.

At intervals every kind of local application was tried to arrest this hæmorrhage which would appear sometimes to cease, only to start again soon after. The slightest abrasion started a fresh point of hæmorrhage. The bleeding point on the prepuce, which could be caught in a mosquito forceps, was ligated, but oozing soon started again around the ligature. There was no sign of hæmorrhage elsewhere and the oozing was only slight, but after forty-eight hours the effect on the child became suddenly manifest in loss of colour, a pinched, anxious expression and refusal or inability to suckle. Evidently and naturally newly-born infants will not stand much loss of blood.

At this stage I decided to transfuse some of the father's blood into the longitudinal sinus. I must admit that this should have been undertaken earlier.

Nine cubic centimetres of the father's blood were transfused and the result was dramatic. The oozing must have

ceased almost immediately, judging from the state of the dressing, which was disturbed as little as possible for a few days. Within half an hour the infant's appearance was altered for the better, some colour appearing in the cheeks. By evening he was taking the breast again and the subsequent progress of the child has been quite normal.

That such a change was the result of the transfusion of little more than a dessertspoonful of blood is most remarkable.

Cases of hæmorrhage in the newly-born are not very uncommon. Every practitioner must experience them and there is apparently a very simple remedy at hand for this very lethal condition. The operation is very simple and within the ability of the least experienced. Because, however, puncture of the longitudinal sinus has not yet become a common practice nor transfusion either for that matter, I venture to give in detail a method of procedure.

Sterilize two syringes, one of ten cubic centimetres capacity, which have interchangeable needles. The latter must be stout (about the thickness of an average-sized safety pin at least). Warm sterile saline solution as well as 2% citrate of soda solution are required. I used for the latter a solution in sterile water of the sodium citrate tablets without further sterilization. One cubic centimetre of this citrate solution is taken up in the ten cubic centimetre syringe and also an unmeasured quantity in the second syringe and both are placed in warm saline or preferably citrate solution in a sterile dish (in the latter case no saline solution need be prepared). In the ten cubic centimetre syringe take nine cubic centimetres of blood from the vein of the donor, giving a dilution of a little over 0.2%. Disconnect the needle and lay the syringe in the warm sterile citrate solution. Next place the baby on its back across a table, the occiput resting at the edge. A nurse, leaning across the child's body and placing her hands at the sides of the head, must carefully steady the latter during the operation. The surgeon stands or sits with "the vertex presenting" over the edge of the table. Having sterilized the area about the anterior fontanelle (no shaving is required) the posterior angle of the fontanelle is defined with the left forefinger. The second syringe is taken and the needle inserted exactly in the mid-line and directed obliquely downwards and forwards at the spot located by the left forefinger. After passing through the scalp a second and very appreciable resistance is felt, overcoming which the needle slips into the sinus, the entry being signalled by a thin stream of blood mixing with the citrate solution in the barrel of the syringe. Care is taken to not let the needle move; the barrel of the syringe is disconnected and replaced by the ten cubic centimetre syringe, when the citrated blood is very slowly delivered into the sinus. Unless the needles used are of quite large gauge, an appreciable amount of force is required to empty the syringe, but as long as the baby's head and syringe have not moved, the surgeon can be sure the needle is still in the sinus and inject with confidence, though slowly. Needles with short bevelled points are desirable, but not necessary.

I offer no apology for going into such detail about such a simple operation, because I know that, had I not previously had the opportunity of seeing a needle put into the longitudinal sinus, I would have appreciated a detailed account of the procedure when I came to undertake it.

Dr. A. M. Wilson, at the clinic given by him during the recent Obstetrical Post-Graduate Course in Melbourne, stated that he believed many cases of inter-cranial hæmorrhage in babies to be dependent upon the hæmorrhagic diathesis. If so, a small transfusion might be a means of saving some of these babies. He also stated that lumbar puncture was giving good results in some of these cases. Accordingly, transfusion early and lumbar puncture later, if symptoms demand, may become recognized as their treatment.

In transfusing newly-born infants the question arises as to the necessity for testing the blood to be injected and the blood of the patient for agglutination. I was under the impression that agglutinins were not formed at that early age and that there was no risk of the recipient's serum agglutinating the donor's corpuscles. But in THE MEDICAL JOURNAL OF AUSTRALIA (November 11, 1923, page 571) it is stated that Dr. D. L. Barlow, in testing the blood of forty new-born infants, found that in only one-third were agglutinins absent.

In adults it is accepted that any reaction between the donor's serum (agglutinin) and the recipient's corpuscles (agglutinable substances) is of no account, but it is just a question whether the same holds true for new-born infants in whose corpuscles agglutinable substance is certainly present, whatever the age may be at which agglutinin appears in their serum. These points need to be definitely cleared up.

Maybe I was just lucky in getting no ill-results in this case. The question also arises as to whether the mother's blood, if not incompatible as regards agglutination, would have arrested the hæmorrhage equally as well. The pathology of hæmophilia in infants is still somewhat obscure. While there is reason to recognize that the condition is hereditary, deficient coagulability is rarely found in the mother and her blood can be usefully employed in treatment.

Reviews.

PROTOZOAL DISEASES.

"SYPHILIS, PALUDISME AND AMIBIASE," by Dr. Paul Ravaut, is a study of the treatment of these three diseases.[1] The author has drawn a great deal on his experiences among patients repatriated from the Near East during the war. He has confined himself in the main to the essentially practical details of treatment. He regards the spirochæte, the plasmodium and the entamœba as definitely protozoal. He sets up the thesis that three specific drugs are available to combat these infections. The treatment of all should be planned on a common scheme. He reviews the question of prophylaxis and abortive medication in special chapters.

In dealing with syphilis he introduces nothing new, but is enthusiastic over the use of mercury and neo-salvarsan in conjunction. He favours the intravenous route for both drugs during the early administration and insists that for complete cure treatment with mercury by mouth and courses of neo-salvarsan over a period of at least three years is necessary. Cyanide of mercury is his favourite preparation. He deals with the question of serum reactions, the examination of the cerebro-spinal fluid, indications for special treatment and discusses at some length the various toxic effects which may be produced by the drugs used. His chapters on the drugs, their action and the technique of their administration are very complete.

Malaria is handled in a similar manner. In fulminating cases he favours the intravenous route for the administration of hydrochlorate of quinine. In all other cases he uses the buccal route and insists on a full dose of two grammes a day. In common with other French writers he maintains that neo-salvarsan exercises a beneficial influence and alternates this drug in 0.15 to 0.3 gramme doses with the quinine. He does not distinguish between the distinct malarial groups of benign and malignant tertian. It appears as if he had mainly to do with patients who had recovered from the acute attack. He is in favour of the prophylactic use of quinine. He emphasizes the chronicity of some forms, the frequent association with other diseases and maintains that neo-salvarsan in these cases is a powerful aid to treatment.

In the part on amœbiasis he points out that many of the obscure cases of diarrhœa seen in France can be proved to be this disease. He uses emetine hypodermically, not exceeding 0.08 gramme a day and if this is not tolerated, he uses a special paste of charcoal, bismuth, glycerine and ipecacuanha, which he states is very well tolerated where bismuth and emetine iodide is not. He believes in varying the route of medication in various stages of the disease; the buccal and rectal route are preferred for chronic infections. Nov-arseno-benzol, he insists, has a wonderful effect on certain types of infection and claims that the cystic stages, as well as other parasitic inhabitants of the colon,

[1] "Syphilis, Paludisme Amibiase: Le Traitement d'Attaque et les Traitements Secondaires," par le Docteur Paul Ravaut; Préface du Professeur Fernand Widal; Deuxième édition refondue; 1922. Paris: Masson et Cie; Post 8vo., paper cover, pp. 214. Price: Frs. 9 net.

can be destroyed by it. He uses also "Narsenol"—a preparation put up in a non-oxidizable form—in 0.1 to 0.2 gramme doses by mouth. The combined medication he also believes is much superior in its effect on hepatitis. In discussing some of the other manifestations of amœbiasis he reports the occurrence of supra-renal inefficiency, but brings forward nothing in support of such a conception.

The work is an essentially practical one and may be regarded as a reliable *résumé* of the modern French conceptions of the treatment of these diseases.

YORKSHIRE MOORS AND YORKSHIREMEN.

THE posthumous book, "My Moorland Patients," by the late Dr. R. W. S. Bishop,[1] is one of those rare productions that charm because of their simplicity of diction, their innocence of all artificial embellishments and their delightful spontaneity. The author intended the book to remain anonymous; his death has removed the necessity. Buried in a remote district in the wilds of the Yorkshire moors, he was perhaps unaware that his fascinating anecdotes and his admirable nature studies were pervaded with an unintentional disclosure of his own character as well as of those among whom he spent many years of his useful life. Fields and lanes, brooks and glens do not attract the modern doctor as a rule. Many admit their lure for a brief holiday or for a well-earned period of rest, but it is another matter to shut out the seduction of the city, the hurry and scurry of the busy centre, the glamour and glare of urban pleasures, the intellectual intercourse of the seats of learning. Perhaps the choice is a matter of taste, of artistic sense. Natural beauties should compare favourably with artificial splendour. The author loved the hills and dales, the woodland and the bleak plateau. He breathed freely on his Yorkshire moors and felt at home with the simple folk who were his patients. Simple folk? At times it would seem that their simplicity were but veneer and that below the surface there was a sagacity of unusual kind. The doctor does not spare the people for whom he laboured hard and well. He recognizes their faults and depicts them in full relief, at times in their full sordidness. In his early days he described the district as a land of footpaths, holly bushes and hypocrites. He is frank in all his descriptions and everyone, himself included, comes in for good-natured criticism. When he first started practice, he was asked at a farm house what he would take. Realizing that Yorkshire hospitality cannot be refused, he selected a little whisky as "the least injurious under the circumstances." The housewife replied: "Ye are welcome reight eneagh to t' drop o' whisky, but we deean's want any mair drunken doctors in t' shop." At the next farmhouse he replied to the same question that he would take a glass of milk. This time he was told: "Ye are welcome to t' drop o' milk, but we deean's want any mair drunken doctors. Dr. Macpherson, when he fust came, used to axe for milk like ye and then he axed for whisky, which was his ruin." The majority of his predecessors had been "topers and drunken dogs." One lonely mortal, sour, stoical, silent, was waiting for death to release him from his sufferings. Dr. Bishop asked him how he spent his hours. "Ah sits and smokes and thinks; sometimes Ah sits and thinks; and sometimes Ah just sits." The Church and the parsons receive their fair share of quiet, witty handling. His clerical friends were bad patients. He had hoped to have learned from them how to die properly, but they gave him no help in this direction. He infuses zest in the anecdote of a stubborn Yorkshire villager who refused to go to church. When tackled by the squire-parson on his defect, this man in surly tones told the parson that no one could make him go to church. The parson threatened to turn him out of his cottage if he did not attend. The reply, "Damn ye! Ah tell ye Ah weeant gan to t' chetch," was too much for the parson. A summons brought him before the local, hard-swearing magistrates, who decided that if he had said, "God damn you!" it would have been profanity, but as he had only said "Damn you!" they would dismiss the case. The vicar's warden used to annoy the fastidious nose of the squire in the next pew by "the strong odour of sanctity and cows."

His keen sense of humour, coupled with an equally acute conception of moral rectitude, impels him to chronicle incidents to disclose the hypocrisy of some of the folk. Several of these stories are told in a style peculiarly entertaining. Many of the old local customs read strangely fantastic, but the doctor realizes the full picturesqueness attaching to them and delights in bringing them vividly before the reader's mind. Funerals, too, occupied his attention and make excellent reading. It seems there is something unusually hard and callous about the typical Yorkshire character, but the good doctor was ever prepared to bury the fault in his pleasant, witty fashion of telling. He refers on many pages to the bargains driven between these sons of the soil. Two Yorkshiremen were talking about a dog which had taken the fancy of both. The owner asked ten pounds for the dog. "It's a hell of a price" was the rejoinder. "It's a hell of a dog" was the reply.

One more story! It concerns an unpopular parson. There had been a terrible snowstorm and the people attending market had been caught in great snowdrifts. The first person found by the rescue party was the parson. After a hurried consultation the village blacksmith delivered the ultimatum of the party. "Noo bide theesen wi' patience and lang suffering, fur thou's t' varra last man we sall dig out." The others were wanted at once to milk the cows, to feed the pigs, to serve the calves and to tend the sheep. "Noo, we deeant want thee till Sunday, so bide thaar till we've laasted all t' rest."

Every chapter teems with delightfully frank pen pictures of a quaint section of English country life. The author fascinates unconsciously but irresistably. Even the more sordid details of his experience leave no bad taste to spoil digestion. Only an admirable man could have written so charming a book.

THE CLAIMS OF THE PSYCHO-THERAPEUTISTS.

IN "'Suggestion' and Common Sense," Dr. R. Allan Bennett gives other organic systems as well as the brain a place in the individual consciousness.[1] He sees a fundamental equality in all cells and psychological possibilities in the individual cell. In preparation for the author's account of the suggestive method, we are told that disease, as one of the experiences that befall an individual, becomes as much "one with him" as other experiences; that the principle "Better a dinner of herbs where love is than a stalled ox and bitterness withal" is applicable to every bodily function; and that it is not much to claim that emotion may cause a temporary change of structure or even by frequent repetition a permanent one.

The technique of the suggestive method is briefly: (*i.*) the patient must understand that he is to rely upon his own efforts, (*ii.*) he must get into a state of complete physical relaxation, (*iii.*) his mind is emptied and made a blank, (*iv.*) hopeful thoughts are substituted for the injurious thoughts belonging to the depressing emotions which normally go with physical disease.

That the practice of psycho-therapeutics is not without its difficulties may be gathered from the following statement: "It is difficult to persuade a member of the Anglo-Saxon race to try suggestion even in secret; nothing will induce him to face a collective séance."

While the practitioner may believe that "suggestion" will benefit the victim of what he knows as functional nervous disorder and that confidence and hope are good allies of *vis medicatrix naturæ*, he will view with caution accounts of the rapid cure of long standing *lupus erythematosus* by a miracle, of the removal of warts by faith and of the temporary inhibition of the progress of malignant disease by psycho-therapeutic measures.

[1] "My Moorland Patients," by a Yorkshire Doctor (the late Dr. R. W. S. Bishop); 1922. London: John Murray; Sydney: Angus & Robertson, Limited; Demy 8vo., pp. x. + 242, with four illustrations. Price: 12s. net.

[1] "'Suggestion' and Common Sense," by R. Allan Bennett, M.D., M.R.C.P.; 1922. Bristol: John Wright & Sons, Limited; Crown 8vo., pp. 105. Price: 6s. net.

The Medical Journal of Australia

SATURDAY, DECEMBER 30, 1922.

The Use and Abuse of Alcohol.

PASSION and intolerance are frequent companions of reformers; impatience and bias may be awakened in those resisting the change. The leader of a revolution recognizes that his most obstinate opponent is apathy and that the most powerful weapon to overcome indifference is ruthless persistence and the adoption of any means to gain an end. He fears the active register less than the passive, because he knows that he can put strong opposition to good use if he can command the attention of the masses. Real argument and hard facts often disappear long before the issue is reached. It would seem that the prohibition movement has reached the stage of finesse and that it is becoming increasingly difficult for the average citizen to weigh the facts in an impartial manner. Much ado is made about the partial failure of the "dry laws" in the United States of America, about the increase in the drinking of methyl alcohol, of bad spirit and of other poisonous liquids. It is impossible to deny that prohibition has produced the "bootlegger"; it would also appear that some medical practitioners can be induced to sign unnecessary prescriptions for whisky. All this merely means that in the first generation of men and women who find themselves deprived of alcoholic beverages that they have learned to enjoy, there are many who are determined to find ways and means to satisfy their craving. No one can foretell whether the next generation, reared in a relatively alcohol-free environment, will manifest the same craving. These forms of argument should not be used in the controversy. The question resolves itself into an evaluation of the beneficial properties of alcoholic preparations as beverages and medicines and of the baneful effects of these preparations. The facts needed to be known are many and complicated. The extremists claim that from a physiological point of view even the smallest quantity of alcohol produces a harmful effect. The more moderate view is that small quantities may produce useful effects in the form of mild stimulation, followed by mild depression of function, the removal of the sense of fatigue, the induction of a pleasurable sensation and the satisfaction of the gustatory sense. There is one difficulty in this aspect of the question, namely, the definition of a "small quantity." As a medicine alcohol has to a large extent gone out of fashion. Many physicians recognize its value as a stimulant, but prescribe it more cautiously than formerly and in smaller doses. Others find that the pharmacopœia contains drugs superior to alcohol as stimulants. The value of alcohol as a vehicle in the preparation of tinctures and the like is generally admitted and this should not be prohibited.

The other side of the problem is even more difficult to assess with accuracy. It is safe to start with the assertion that prolonged drinking to excess gives rise to a train of injuries to every organ of the body. As an arterial poison alcohol stands alone in so far as the frequency and severity of this action is concerned. The direct and indirect damage inflicted by alcohol on the brain, on the liver, the kidneys and peripheral nerves needs no detailed elaboration. Much more information is required before a dogmatic statement can be made in regard to the actual and relative amount of injury inflicted by excessive drinking. Until it can be ascertained how many persons in each unit of population are incapacitated by drink and in what percentage of deaths alcohol has played a contributory part, it is impossible to justify the claim that the moderate user of alcohol should relinquish his relatively harmless and certainly pleasant habit for the benefit of the race. The available data are contradictory and inexact. It is not enough for us to believe that the harm done is so great that a large sacrifice must be made; we must know exactly how great that harm is and how much of it can be prevented by legislative measures of prohibition.

Professor Edgar L. Collis has recently illuminated an important aspect of this question that should be taken into account. He has studied the alcohol question as it affects industrial conditions and with his great knowledge of industrial hygiene, he is able

to draw some curious inferences. He points out that modern industry has appeared with a suddenness not usually recognized. The introduction of power-driven machinery and the subdivision of processes have compelled the worker to keep the pace of the factory. Formerly the craftsman could work at his own rate. Added to the exhausting effect of regular work performed at a set pace, there is the result of wages being paid when the work is finished. Pay-day on Friday leads to the temptation to squander. This effect is enhanced by the post-war large increase in the amounts earned. Professor Collis has found that industrial fatigue finds its expression in irritation, weariness and discontent. The worker who has lost fluid by sweating during his work, is apt to find solace in the consumption of spirits diluted with water. The narcotic action of the alcohol and the quenching of the thirst resulting from the loss of water in the form of sweat explain the increased tendency to consume alcoholic beverages. The convictions for drunkenness, calculated in relation to unit of population, is highest in the districts where the main industries are of the heavy work type, such as ship-building, coal-mining and metal-smelting, and lowest in the areas of light work, such as boot and shoe manufacture and market gardening. He finds, on the other hand, that the social uplift which had been accompanied by improved health and greater wealth, shorter hours of toil, the provision of wholesome food during working hours and the provision of facilities for personal hygiene have resulted in a definite reduction in the amount of inebriety. From these observations it would seem that the ultimate result of the social evolution would be a substantial decrease in habitual excess in indulgence in alcoholic beverages.

Recent researches have thrown further light upon the relation of alcoholism and industrial efficiency. A. H. Stehr has shown that in a large industrial undertaking the output of work by a temperate man increased rapidly on Monday, reached its maximum on Tuesday and declined with rapidity on Friday. The curve of the output of work of a man easily persuaded to drink was quite different. The output started at a low level on Monday; it reached the maximum on Thursday and the level on Friday was very low. He found that these curves were typical of the two classes. Such a result of indulgence in alcohol must eventually lead to an automatic remedy. The abstinent or temperate worker will find employment without difficulty; employers will find it sound economy to pay more for his services and in the long run the inefficient man will be crowded out of the factory. It may be worth while to study more of these industrial aspects of the problem in order to discover measures which may result in the eradication of alcoholism without the reaction that seems to accompany such a drastic expedient as prohibition.

FATIGUE AND SUSCEPTIBILITY TO INFECTION.

IT is commonly held that fatigue renders an individual more liable to infection. The truth of this hypothesis is not based on any exact experimental or statistical evidence. Fatigue as a result of muscular exertion may be said to occur when the products of metabolism formed in the process cannot be removed by the blood stream with sufficient completeness or expedition. The importance of the whole question from the point of view of industrial hygiene as well as the purely scientific standpoint is obvious. In 1890 Charrin and Roger investigated the susceptibility of white rats to anthrax infection in relation to fatigue. Their experiments were not extensive, but the results they obtained indicated that fatigue favoured infection by anthrax bacilli, when undertaken subsequent to injection. In 1910 Abbot and Gildersleeve, experimenting with rabbits, claimed that fatigue always produced a reduction of the opsonic index. Their results in regard to the susceptibility to infection by pyogenic organisms were inconclusive. In 1921 Oppenheimer and Spaeth obtained results which were the reverse of those previously mentioned. These observers found that fatigue artificially induced in white and hooded rats tended to increase their resistance to subcutaneous injections of tetanus toxin. Results were identical whether fatigue preceded or followed the injection. They experimented with white and hooded rats in regard to pneumococcus Type I. and found that fatigue increased resistance to infection by this organism.

This subject has recently been investigated by Dr. Edith E. Nicholls and Dr. Reynold A. Spaeth.[1] These observers point out that, in view of the divergence of previously obtained results, it seemed possible either that rats might be possessed of some idiosyncrasy which would account for the divergence or else that some obscure technical error might be involved. They undertook a series of experiments with guinea-pigs. They took particular care to obtain healthy pigs and kept them under observation and charted their weights for some days prior to the experimentation. The animals were fatigued by means of an electrically driven revolving

[1] *The American Journal of Hygiene*, September, 1922.

drum. They were considered exhausted when they lay down in the drums and failed to respond to ordinary exciting stimuli, such as pounding on the table, tapping on the drums or gentle handling. It was found that there was considerable variation in the number of revolutions required to fatigue a pig. The number varied with the extent of their mastery of the running problem. Each animal was subjected to three running periods and the injections of pneumococci were given either before or after running. An endeavour was made to determine the minimum lethal dose. It was found impossible to establish a dose independent of the weight of the animal. It was found that constant results could be obtained by giving a definite dose per gramme of body weight. An interesting point was discovered in the fact that albino guinea-pigs were three times as susceptible to the culture used as were pigmented pigs. A dose of 0.0005 cubic centimetre of culture per gramme weight was lethal for normal albino pigs, while 0.0016 cubic centimetre per gramme weight was required to kill normal pigmented pigs. An endeavour to obtain a culture of constant virulence was made. A culture that, as far as was known, had not been through a guinea pig, was used. This was transplanted to fresh blood broth medium according to a definite scheme. The observations were controlled by means of systematic autopsies and smears of heart blood, of pleural and of peritoneal exudates were made. In all doubtful instances cultures of blood were grown on blood agar. In this way only deaths that were undoubtedly due to pneumococcal infections, were included in their results. They found that of the unfatigued group 80% of the animals died, while in the animals fatigued three times before injection 80% lived. Fatigue after injection was accompanied by a greater percentage of deaths than fatigue before injection. In this group nine of sixteen pigs lived, while seven died. Albino and pigmented pigs received doses which had been controlled for their particular group. Drs. Nicholls and Spaeth promise a further communication on the relationship between natural resistance and inherited character-albinism.

These results are important in that they completely upset the generally accepted hypothesis in regard to fatigue and resistance. It is certainly only an hypothesis, but in view of the earlier work on the subject further observations are necessary before a general rule can be laid down.

MULTIPLE POLYPI OF THE STOMACH.

ALTHOUGH the occurrence of polypi in the stomach, as in other organs of the body, is not uncommon, the presence of multiple polypi in the condition known as diffuse polyposis or *gastritis polyposa* is rare. It was in 1888 that Menetrier gave the first complete description of a form of polyposis that he named poly-adenoma. Dr. G. Percival Mills has recently reported a case of this interesting condition.[1] The patient was a man, aged sixty years, who for a period of seven months had complained of attacks of diarrhœa with occasional vomiting. He had had no pain. He complained of nausea and had no appetite. He had lost weight to a considerable extent. The clinical condition, together with a typical appearance of pyloric stenosis on X-ray examination led to a diagnosis of malignant disease of the pylorus. At operation a tumour of the pylorus was found. This later proved to be a columnar-celled carcinoma. When gastrectomy was performed it was discovered that the body and fundus of the viscus were studded with small polypoid tumours, varying in size from that of a split pea to that of a cherry. Some were sessile and some were pedunculated. Half the stomach was removed. The patient recovered. A remarkable thing about the condition was that there were no polypi in the neighbourhood of the carcinoma. These were confined to the body and fundus. There was no sign of ulceration or infiltration in any of the polypi and microscopically they had the appearance of a localized overgrowth of gastric mucosa. The fibrous core of the polypus was continuous with the sub-mucosa. The cells were of the normal columnar type and the basement membrane was everywhere intact. There was no evidence of round-celled infiltration or other sign of inflammation. The mucous membrane between the polypi was normal. This finding of Dr. Mills differs from that of Menetrier, who stated that there were always signs of chronic inflammation between the polypi. On this ground Dr. Mills objects to the use of the term *gastritis polyposa*. He has collected from the literature particulars of nineteen cases of this condition and has included those in which at least two tumours were present. Osler stated that the occurrence of poly-adenoma was common. Dr. Mills says that the literature is confused by the inclusion of instances of single polypus and of other disorders.

In regard to the association of multiple polypi with malignant disease, Dr. Mills points out that in the whole series of twenty cases of the condition only four were associated with carcinoma and the malignant neoplasm in all these was at or very near the pylorus. The polypi were not secondary to the malignant tumour, as their microscopical appearances showed. In discussing the possibility of the malignant tumour having developed as a secondary change in a polypus, he maintains that malignant change in gastric polypi is not very common, for in twelve *post mortem* examinations in patients at fifty-eight years of age or thereabouts carcinoma was present in only two instances. Dr. Mills states that syphilis has been suggested as a causative factor by some observers, but only refers to one instance in which there was evidence of the presence of this disease. Apparently no Wassermann test was carried out on the serum of his patient. He concludes that in view of the absence of a capsule and of the blending of the tumour with the normal mucous membrane these polypi would be more correctly described as papillomata than as adenomata. He thinks that it will eventually be shown that they are of the nature of infective warts on the mucous membrane of the stomach. He states that overgrowth of squamous epithelium can be produced on the skin by irritation or by infection and sees no reason why a similar overgrowth should not take place in the mucous membrane of the stomach.

[1] *The British Journal of Surgery*, October, 1922.

British Medical Association News.

MEDICO-POLITICAL.

A MEETING of the Queensland Branch of the British Medical Association was held at the B.M.A. Building, Adelaide Street, Brisbane, on November 3, 1922, DR. G. P. DIXON, C.B.E., the President, in the chair.

Method of Election of the President.

THE HONORARY SECRETARY gave notice of motion on behalf of the Council as follows:

> There shall be no ballot for the position of President. The Vice-President elected for the year shall be the President-Elect for the following year.

Constitution of the Council.

DR. A. GRAHAM BUTLER, D.S.O., moved:

> That the Council of the Branch be increased by two, making a total of eight (inclusive of the Federal Committee delegates).
>
> That in order that the increased representation may be operative during next year, the incoming Council be empowered to elect two members to serve until the next election of officers.

An amendment was moved by DR. E. S. MEYERS and was carried:

> That the Council of the Branch be increased by four, making the total eight (exclusive of the Federal Committee delegates).

The amendment was passed as a substantive motion.

The second section of the original motion with the consequential amendment of the words "two members" to read "four members" was also carried.

Public Health Legislation.

A paper composed by the Public Health Sub-Committee of the Queensland Branch, entitled "Suggested Amendments of Public Health Legislation in Queensland," was read (see page 753).

THE HONOURABLE W. F. TAYLOR, M.L.A., considered that radical changes were necessary if preventive medicine were to take its proper position in Queensland. The local authorities tried to save money at all costs. Action was taken only when they were frightened during an epidemic. As soon as the emergency was over, they wanted to stop the expenditure. A typical example of this was the agitation to abolish the Metropolitan Health Board. They required a health department under the presidency of a Minister of Health, who should be a medical man. An independent board was the only means whereby public health could be divorced from politics.

DR. A. JEFFERIS TURNER referred to the annual outbreaks of gastro-enteritis in infants and stated that screening of food was not sufficient. The use of comforters was often to blame. If these articles must be used, they should be kept covered and not pinned to the frock or allowed to fall on the floor. There should be some connecting link between the profession and the Commissioner of Public Health. He advocated an advisory board, not necessarily endowed with executive authority. Such a board would not be amenable to political pressure, as was the present Commissioner.

DR. E. CULPIN wished to see the formation of a medico-political committee of the Branch to deal with public health matters. This committee would be able to approach and advise the Government on health matters. Town planning and prohibition were questions closely associated with public health. Medical representation in Parliament would also assist greatly.

DR. C. E. TUCKER considered that there was an urgent need for the central laboratory to be continuously open. At present it was closed daily at four o'clock and remained closed at week-ends and during holidays. He thought that there should be a central collecting station in the city for pathological specimens.

DR. A. STEWART said that, while the report was excellent, it was too generalized. The suggestion of a simplified notification form was perhaps an exception. He held that the Branch should support the Commissioner more than it had done in the past.

DR. A. GRAHAM BUTLER, D.S.O., maintained that all questions of the prevention of epidemic disease were beyond the cognizance and concern of the general practitioner. The lack of cooperation between the department paid for the prevention of disease and the general practitioner not paid for this work was evidenced by the absence of the members of the Department of Public Health that evening. They had all received notice of the meeting. The incidence rates of infective disease in Brisbane were no worse than elsewhere in Australia. Brisbane had not been organized nor laid out to prevent the evils of gross overcrowding. The essence of preventive medicine was based on the endeavour to make the conditions of living such that infective disease would be less likely to occur. This could be done by town planning, housing regulations and the like. In the next place, the knowledge of the mode of spread of disease and of the infective cycle must increase with the coordination of clinical and laboratory research. Health regulations should embody the latest work. In Brisbane there was a lack of coordination of the general practitioner with the Health Department and apparently a complete absence of research work in connexion with the latter.

DR. E. S. MEYERS said that the local authorities did not receive the support from the Health Department which they had a right to expect. The regimental medical officer was equivalent to the medical officer of health and the sanitary corporal to the local authority. Results had been obtained in the Army when the regimental medical officer and his corporal made daily inspections and immediately rectified any trouble discovered. In civil life similar results should be obtained, especially if applied to the eradication of flies and mosquitoes. The Health Department might consider the advisability of obtaining the opinions of the medical officers under the Deputy Director of Medical Services of the First Military District.

DR. G. P. DIXON, C.B.E., thanked the Public Health Sub-Committee for their very practical paper, which should prove useful to the local authorities. The replies to the questionnaire revealed that public health matters were of little interest to the general practitioner. War service had shown that success could be obtained along the lines of eradication, cooperation and the courage of conviction of the heads that the methods advocated were right.

DR. E. CULPIN moved and DR. A. GRAHAM BUTLER seconded the following:

> That the Public Health Sub-Committee be appointed a delegation from the Branch to interview the Health Commissioner and discuss possible amendments of the Public Health Regulations.

DR. J. LOCKHART GIBSON moved and DR. A. STEWART seconded the following amendment:

> That the Branch suggests to the Health Commissioner that the Public Health Sub-Committee be given an opportunity once a month of discussing matters of public health with him.

The amendment was carried. It was also carried as a substantive motion.

THE FIRST OVARIOTOMY PERFORMED IN SOUTH AUSTRALIA.

THE following letter has been presented to the South Australian Branch of the British Medical Association by Dr. John Corbin. It was found among some old papers at the Pathological Museum at the University of Adelaide. It was written by the late Dr. T. W. Corbin to the late Dr. Davies Thomas on November 5, 1881.

"King William Street,
"5th November, 1881.

"My Dear Thomas: The sarcoma was of the left ovary. I removed it on the 24th July, 1879, through an incision

ten inches long in the abdominal wall. It was half as large again as it is now in all directions and I had to incise inch by inch until there was room to extract.

"This was the first ovariotomy done in this colony under Lister's spray.

"As far as the ovariotomy was concerned, the success was complete. The woman is still alive and well, but a fæcal fistula from the following circumstances resulted.

"It was before the intra-peritoneal method of treating the the pedicle had been tried here. You will see that the pedicle is immensely broad, in fact, the whole width of the broad ligament. It was an utterly unsuitable case for the clamp and as the clamp separated, there was a good deal of sloughing. Directly after the pedicle retracted, leaving a sloughy wound one and a half inches deep and when all the sloughy sides of this wound cleaned off, one portion exposed the interior of the small intestine about six millimetres in diameter. Of course this has never healed; attempts were made at the time to close it, but without success and the patient refuses to run any more risk from further operative proceedings.

"All this has really nothing to do with the tumour and I think the answer to your third question may fairly be 'recovery.'

"Yours sincerely,
(Signed) "T. W. CORBIN."

NOMINATIONS AND ELECTIONS.

THE undermentioned has been elected as a member of the Victorian Branch of the British Medical Association:

JENNINGS, ERNEST CHARLES, L.L.Mid., R.C.P. *et* S., Irel., 1904, Werribee.

Medical Societies.

THE MEDICAL SCIENCES CLUB OF SOUTH AUSTRALIA.

A MEETING of the Medical Sciences Club of South Australia was held in the Darling Building, University of Adelaide, on November 3, 1922.

Potentiometer for Determining Hydrogen-Ion Concentration.

PROFESSOR W. BRAILSFORD ROBERTSON AND MR. MARSTON exhibited a simple form of potentiometer and hydrogen electrode for the determination of hydrogen-ion concentrations in solution. A hydrogen generator specially designed by Mr. Marston was shown. This generator was constructed to deliver automatically pure electrolytic hydrogen to the electrode. As the pressure of hydrogen rose, the rate of generation fell. This was brought about by means of a tapering conical electrode which offered a rapidly diminishing surface of contact to the solution undergoing electrolysis as the pressure forced the liquid downwards in the generator.

Professor Robertson explained the mechanisms which cooperated to maintain the neutrality of the blood and tissue fluids and described the various methods in use for determining the hydrogen-ion concentration in the blood. These methods all depended for their accuracy upon potentiometer measurements. Numerous devices had been introduced which had rendered these measurements unnecessary, excepting for the preparation of standards of comparison. He explained how by the simultaneous estimation of alveolar carbon dioxide tension and the bicarbonate concentration in the blood the hydrogen-ion concentration of the blood could be ascertained.

Epithelial Tumour of the Remnant of the Hypophyseal Duct.

DR. C. T. C. DE CRESPIGNY exhibited a specimen of a tumour removed *post mortem* from the brain. The patient had been a boy who, in 1913, at the age of six years, had manifested signs of slight incoordination and slight paralysis of the right hand. When feeding himself he had tended to drop his spoon. Later there had been evidence of a mild degree of hemiplegia. The right field of vision of both eyes had been blind. On the left side there had been ptosis with left external strabismus. From these signs it had been concluded that there was interference with the third nerve with locking of the left visual tract and interference with the left pyramidal column. This indicated a lesion in the left *crus cerebri*, where the optic tract wound around in close proximity to the third nerve. Early in 1914 a decompression operation on the left side had been performed by Dr. H. S. Newland. The symptoms had become greatly lessened and the signs of hemiplegia had disappeared. The patient had regained the use of his right hand; the ptosis had disappeared; but the hemianopsia had persisted. Dr. Newland had then performed a decompression operation on the right side and had endeavoured to remove the tumour, but without success. This operation had been succeeded by an extra-dural extravasation. One month later, in March of 1914, an attempt had been made to mould the brain and so to obtain access to the tumour. The patient had become very ill and the attempt had been relinquished. After this the patient had been better, but he had had two or three epileptic seizures, as well as attacks resembling minor paralysis. He had had transient attacks of aphasia. He had explained at a later date that he had wanted to speak, but that the words would not come. In June, 1920, he had been a well-developed boy for his age; puberty had occurred earlier than usual. There had been a large, bulging area on the left side of the head; the bone had re-united on the right side, but not on the left. In June, 1921, the convulsive attacks had begun to supervene every six or eight weeks. The boy had been unconscious for some time after each attack. As one of the attacks had been very severe, it had been thought advisable to remove the covering of bone and to aspirate the cerebral hernia. About one hundred and twenty cubic centimetres of golden-yellow fluid had been removed by means of a cannula. The fluid had contained a large quantity of cholesterol. After a few weeks the fluid had again accumulated and during the succeeding fifteen months it had been removed eight or ten times. About one hundred and twenty cubic centimetres had been evacuated each time. At the last three or four tappings fluids indistinguishable from cerebro-spinal fluid had been withdrawn. The patient had become lethargic three or four months before death; the hemiplegia had returned on the right side. He had sunk into coma with the right leg drawn up in contact with the chest. He had been much emaciated at the time of death.

A partial *post mortem* examination had been performed. The brain had been removed. A cyst had been found in the left temporo-sphenoidal lobe communicating by a small opening with the lateral ventricle. A small, hard and bony tumour had been found in the region originally indicated as the site of the lesion, namely, the *crus cerebri*. The surface of the cyst also contained calcareous areas. The tumour was submitted to Professor Cleland and Dr. Bull for examination. They reported as follows:

"The left temporo-sphenoidal lobe was occupied by a somewhat elliptical cystic cavity ten centimetres long, about five centimetres laterally and approximately 3.2 centimetres vertically, leaving in places a mere shell of cerebral tissue and in others, as, for instance, the upper aspect, about six millimetres.

"The tunnelling extended into the occipital lobe, reaching to within two centimetres of its posterior lobe. The wall of the cavity was smooth and showed a delicate pia-like membrane which could be easily separated from the underlying brain tissue and which was impregnated in places with a whitish material, not gritty, forming irregular reticulations.

"There was a thickened, calcified plaque in the wall of the temporo-sphenoidal lobe in association with the cyst a little behind the optic chiasma, the remains of the lobe being about six millimetres thick. Projecting forwards and inwards from this and covering the optic chiasma and left optic nerve was an irregular plaque of hard, calcareous tissue.

"The right lateral ventricle was a little distended and

showed brownish granules in its wall, with some little rough elevations. The foramina of Munro were patent.

"The left lateral ventricle was somewhat dilated in front and a little compressed in the middle portion. At the commencement of the lateral horn was present a partial diaphragm separating the cyst from the ventricular space. Perforation of the diaphragm was probably accidental. If so, the cyst represented the distended descending horn separated by adherent chorioid plexus from the ventricle proper. This was supported by subsequent histological examination, which showed that the cyst was lined by ependymal epithelium.

"In the anterior horn near the middle line, two centimetres in front of the foramina of Munro, was an embedded, discoloured, irregular body, two centimetres long, apparently of the same structure as a loose body which fell out of one of the ventricles.

"Microscopical examination of the floor of the internal capsule showed no abnormality. The inner edge was seen to be lined by ependymal cells. The membrane of the cyst was seen to consist of hyperplastic ependymal cells.

"The nodule in the left ventricle and the free body had the same histological structure and were seen to consist of fibrous tissue containing long slit-like spaces, probably at one time occupied by cholesterol crystals. There was slight tendency to multi-nucleated cell formation. Old blood pigment was present in the periphery. Sections of the wall of the cyst (portion of the temporo-sphenoidal lobe) showed a histological picture resembling that of the nodule in the left ventricle and free body, but showed also scattered throughout larger and smaller areas which took the picric of Van Gieson and appeared to consist of cells resembling large squamous epithelial cells or even large cartilage cells with granular cytoplasm. The nucleus of these cells was very indistinct. Sometimes the cells were arranged in whorls resembling a cell-nest and at other times they were squeezed together so that they became very elongated. An early calcareous deposit was to be seen in and about these cells. Towards one edge of the section the formation of osteoid tissue was seen to be associated with the cells.

"Sections of the calcareous plaque from optic chiasma showed a true bone formation associated with the large epithelial-like cells. The remaining unchanged cells could be seen in whorled and irregular masses."

From these observations it would appear that the lesion was in the nature of a neoplasm and that the large epithelial-like cells were the tumour cells. The tinctorial reaction of the cells with the picnic of Van Gieson suggested that they were not mesoblastic in origin. This left a hypoblastic origin from the neighbouring remnants of notocord or an epiblastic origin from the neural epithelium and its derivation or the hypophyseal duct.

The tumour had its origin in proximity to the sphenoid where tumours derived from notocord occurred, though no adhesion to the bone was noted on removal of the brain. This might have been present to some extent yet unobserved.

Possibly the bone formation was due to the inclusion of osteoblasts in the reacting connective tissue.

The most probable explanation was that it was an epithelial tumour of the remnants of the hypophyseal duct. Metaplastic changes in the stroma of these tumours were known to yield bone and cartilage.

Ophthalmoscope and Thermometer.

DR. GRANT exhibited a new type of ophthalmoscope provided with an electric light operated by a small battery and controlled by a rheostate. By way of comparison Sir Joseph Verco exhibited the ophthalmoscope used by him fifty years previously.

Dr. Grant also exhibited a type of clinical thermometer which was in use in Central America.

Mite Acquired by Children from Domestic Fowls.

PROFESSOR J. B. CLELAND exhibited a mite acquired by children from domestic fowls. The mite had been identified by Mr. Tiegs as *Dermanyssus gallinæ*. This mite was very minute and its presence on the skin might very readily be overlooked. It formed little groups of irritating papules which occurred in crops and might readily give rise to the impression that the child was suffering from one of the ordinary infectious skin diseases, were it not that no general symptoms developed. As a rule these mites could not live on human beings for more than two or three days, but the effect of their bites might endure for a week or more. Oil of cajuput or a saturated solution of picric acid in 70% alochol was found to give great relief. The same treatment was found very effective for allaying irritation due to the bites of mosquitoes.

MEDICAL DEFENCE SOCIETY OF QUEENSLAND.

WE have been requested to publish the following report of the Medical Defence Society of Queensland, which was presented to the annual meeting of the Society in December, 1922:

Annual Report of Council, 1922.

Membership.

The Society has now a membership of one hundred and seventy-one. During the year seventeen new members were elected; three were struck off (unfinancial) and twelve left the State. We regret to record the following losses by death: DR. ALFRED SUTTON and DR. C. S. HAWKES, Brisbane; DR. P. C. HIGGINS, Clermont; and DR. A. NICOLL, Gympie.

Office-Bearers.

The office-bearers elected for 1922 were as follows:

President: DR. T. R. MCKENNA.
Vice-President: DR. A. B. CARVOSSO.
Honorary Treasurer: DR. A. H. MARKS.
Honorary Secretary: DR. R. MARSHALL ALLAN.
Auditor: MR. R. G. GROOM.
Council: DR. W. N. ROBERTSON, DR. W. F. TAYLOR, DR. WILTON LOVE, DR. F. W. PAGE, DR. A. STEWART, DR. KERR SCOTT, DR. J. ESPIE DODS.

Medico-Legal.

Your Council has to report that no legal cases were dealt with during the year. Three actions for defamation were reported to the Council for advice. In two cases a satisfactory result was obtained. The third case was regarded as one of personal spite and, as no principle was involved, the Council resolved to take no action.

Counsel's opinion was obtained in a case of alleged wrongful dismissal by a hospital committee which was irregularly convened. The opinion confirmed the objections raised by the member, who acted on the advice given by counsel.

Inquiry was made regarding assistance in recovering fees for medical attendance. The advice, but not the financial aid of the Society was given.

Taxation: Sale of Practice.

No further action has been taken by the State Income Tax Commissioner in this matter, which was referred to in the last annual report.

Indemnity Insurance.

No further developments have occurred in this connexion.

Assets.

The total assets now amount to £1,342 11s. 8d.. During the year a further £100 was added to the amount placed at fixed deposit in the National Bank of Australasia, Limited, making a total of £500 at 5% interest.

(Signed) T. R. MCKENNA, President.
R. MARSHALL ALLAN, Secretary.

The balance sheet shows that the assets of the Society amounted to £1,342 11s. 8d. on November 30, 1922. Of this sum £600 is invested in War Loan and £100 in the Queensland Medical Land Investment Company, Limited. From the Treasurer's financial statement it appears that the income from entrance fees, subscriptions and exchanges amounted to £110 8s. 6d., while dividends and interest yielded £56 13s. 6d.. The expenses for the year, as will be gathered from the report, were low. The Treasurer was able to show a balance of income over expenditure of £143 3s. 4d..

Public Health.

THE HEALTH OF QUEENSLAND.

THE ANNUAL REPORT OF THE COMMISSIONER OF PUBLIC HEALTH OF QUEENSLAND for the year ended June 30, 1922, deals with several matters of unusual interest. At a recent meeting of the Queensland Branch of the British Medical Association a sub-committee appointed to deal with matters concerning the protection of the public health, presented a communication in the course of which the several defects in the regulations under the *Health Acts* were emphasized and a strong criticism was drawn in regard to the administrative control. It is not always easy to discover from the published annual report of the Health Departments how far the activities of the Department have been effective in reducing the incidence of infective disease and in eliminating recognized causes of ill-health.

Statistics.

Dr. J. I. Moore, the Commissioner of Public Health, starts his report with a short *résumé* of the statistical returns of Queensland, other Australian States and other countries. It appears that in 1921 the crude birth rate in Queensland was 26.59 per thousand of population. Of the Australian States, Tasmania heads the list wtih 26.97. The only higher figure quoted is that of Quebec for the year 1920, *id est*, 33.3. The general death rate in Queensland was 9.34 per thousand of population, which is the lowest recorded. The highest death rate in the Commonwealth was 10.44 in Western Australia. In regard to infantile mortality, Queensland is in a relatively satisfactory position. It stood at 54.1 per thousand births; the next lowest was New South Wales, with 62.9, and the highest was Tasmania, at 78.4. A low infantile mortality was recorded in the Netherlands for the year 1919 of 50.0. Dr. Moore is satisfied that the diminution of the infantile death rate is largely due to the action of the Government, both in providing baby clinics and in propaganda work in educating young mothers in the care and upbringing of infants.

Infective Diseases.

Diphtheria.

It is claimed that during the year under review there were 1,371 cases of diphtheria in the State, as compared with 3,079 in the year ended June 30, 1921. According to the weekly returns issued by the Department, it would appear that there were 2,364 cases in 1919, 3,393 in 1920 and 2,434 in 1921. The incidence for the year ended June 30, 1922, is equivalent to 1.78 per thousand of population, while the incidence for the year 1921 was 3.1. It is claimed that the reduction in incidence is due mainly to the fact that no patient or "carrier" is discharged until the attempts to grow the diphtheria bacillus from the swabbings of the throat have failed on three successive occasions. It is admitted, however, that the reduction in numbers was to some extent due to the fact that the cases are not counted unless the diagnosis is confirmed by bacteriological examination. It is stated that in the past suspected infections were frequently found not to be diphtheria. In these circumstances it would appear to be very difficult to draw any comparisons. On the one hand, we are told that in previous years cases which were not diphtheria, have been included on account of a clinical similarity. On the other hand, it is evident that as the swabs have to be sent to the Laboratory of Micro-biology and Pathology in Brisbane, the failure to grow the Klebs-Löffler bacillus may be due to the dying out of these bacilli in transit. No reference is made to the death-rate from diphtheria. In the year 1921 there were 109 deaths from this disease among the 2,434 cases reported. This represents a case mortality of just under 4.48%, a somewhat high figure. It will be interesting to learn how many deaths occurred among the 1,371 patients referred to in the report.

Enteric Fever.

The number of cases of enteric fever notified was 336, as compared with 522 in the previous year. It is claimed that the decrease is due to prophylactic measures, to improved sanitary conditions and to the strict enforcement of the regulations. It is interesting to note that the reduction was relatively small in the metropolitan area and larger elsewhere in the State. No mention is made of the part played by the Australian Hookworm Campaign in improving the sanitary conditions of various districts, especially in the north. It would appear that the incidence of enteric fever in the State of Queensland has varied very widely during the past five years or more. The figures for 1917 were 583, for 1918 519, for 1919 680, for 1920 729 and for 1921 516. These figures suggest that a reduction in a single year may have little or no significance and may be traceable to causes other than those connected with public health administration. It is recorded that in response to a request from local medical practitioners one of the health officers of the Department was commissioned to investigate an illness prevalent in the northern centres which is said to have a similarity to enteric fever.

Pulmonary Tuberculosis.

The total number of notifications of pulmonary tuberculosis was 518, including 227 in the metropolitan area. In the previous year the number was 463. It seems that the increase is explained by the inclusion of infections in ex-soldiers in the Repatriation Sanatorium at Stanthorpe. The Medical Officer at the Central Tuberculosis Bureau examined seventy-seven patients and found that forty-six were suitable for sanatorium treatment. Twenty-six patients were sent to the Diamantina Hospital and five were sent to the institution at Dunwich. Poor patients who could not attend as out-patients at a hospital, were visited by the medical officers and the staff nurse of the Department also made numerous inquiries and rendered aid to the patients and their family.

Hookworm Disease.

The Australian Hookworm Campaign is an organization instituted by the International Health Board of the Rockefeller Foundation. The Commonwealth Government and the Queensland State Government contribute an annual sum toward the cost of the undertaking. The number of notifications sent in of hookworm disease was one hundred and seven, as compared with ninety-two in the previous year. Dr. Moore gives some information concerning the activity of the Campaign, especially in the demonstration that the infection is limited to areas with a high rainfall.

Plague.

During the twelve months covered by the report plague broke out in Queensland. The first human infection took place on August 23, 1921. The last infection was on April 6, 1922. The total number of infections in the metropolitan area was fifty-seven and in the remainder of the State fifty-seven, making a total of one hundred and fourteen. The case mortality among whites was 46.29%.

The first patient died on August 23, 1921, and the nature of the infection was proved bacteriologically after his death. The second patient also died in his own home. The third was a boy who was removed to the Lytton Isolation Hospital twelve days later. From October 6 the Wattlebrae Hospital was reserved for the reception of patients suffering from plague. About this time arrangements were made for the admission of plague patients to the isolation wards of general hospitals. Difficulty was experienced at first in securing sufficient medical and nursing attendance and domestic aid. Later satisfactory arrangements were made.

Dr. Moore considers that the disappearance of the disease was brought about by the activities of the Government and of the local authorities in enforcing methods of cleanliness and in carrying out a systematic destruction of rodents and fleas. He is inclined to the belief that the outbreak was caused by the importation of infected rats from overseas and their transference to warehouses in cargoes. The first plague-infected rat was caught on August 31, 1921, at Cairns. On September 6 four infected rats were discovered in a bag and bale store in Brisbane. The last infected rat was caught twelve miles from Brisbane on April 26, 1922. The total number of infected animals (rats, mice and cats) within the metropolitan area was 191 and elsewhere in the State 70. Sentinel guinea-

pigs were employed to act as flea traps and to indicate the prevalence of infected fleas. It appears from investigations carried out with fifty-seven rats and six guinea-pigs that with six exceptions *Rattus norvegicus* harboured *Xenopsylla cheopis*, while *Rattus rattus* occasionally harboured *Ctenocephalus felis*.

The special regulations gazetted on September 21, 1921, for the purpose of combating the outbreak included the following measures. A house-to-house inspection was prescribed; infected or suspected premises were isolated. The health officer was given power to detain or place under surveillance persons suffering from plague or suspected to be so suffering. These persons could be removed to specified hospitals or places of isolation. Suspects could also be removed. Isolation and disinfection of premises could be carried out when required. On December 2, 1921, model regulations were introduced at the instigation of a conference convened by the Commonwealth Government, at which the several States were represented. At the same time a committee, called the Metropolitan Joint Health Board, was appointed. This Board was instructed to carry out the so-called "Rat, Flea and Plague-Carrying Insects Prevention and Destruction Regulations (1921)."

Queensland has been exceptionally fortunate in escaping lightly from the danger of this outbreak of plague. Comments have been made in these columns concerning the extraordinary policy of the Department at the outset in delaying to notify the Federal authority. It is unnecessary at this late date to discuss in a critical manner the methods of attack adopted in Queensland. Little or no information of importance is disclosed in the report. It is to be hoped that in any future emergency of the kind, the health authority will display more frankness and seek the aid of the whole profession before the infection gets out of hand.

Venereal Diseases.

The position in regard to venereal disease is not very clearly stated. It appears that during the course of the year 1,801 notifications concerning persons were received. In the previous year notifications concerning 2,150 had been received. The vast majority of the infections were gonococcal. In the metropolitan area a total of 1,085 were suffering from venereal diseases, of whom 969 had gonorrhœa, 109 had syphilis, eleven had chancroid and six had venereal warts. In ten instances there was a double infection. There were 612 gonorrhœal infections outside the metropolitan area, sixty-five syphilitic infections, twenty-nine soft sore infections, eleven granulomata and nine venereal warts. As there were four double infections, the total number of persons involved was 716.

The number of persons notified from the Departmental Venereal Diseases Clinics in Brisbane was 337, being 313 males and 24 females. The number of persons reported on account of failure to attend for treatment would seem to have been 673, including 448 male and four female patients attending at the clinics and 221 under treatment by private practitioners. Of the 448 male clinic patients 205 responded to a written warning. Four had left the State. The police took action in regard to 221. It seems that, in addition to this number, the police took action in connexion with 127 others. Of the total number, seventy-four were warned, but nine failed to comply with the instructions and were fined sums ranging from £2 to £5 for breaches of the Act. Thirteen of the defaulters had left the State, two were in gaol and six produced certificates of cure. Dr. Moore does not give the total figures for the State in such a manner that the reader can discover the incidence of default and the ultimate result of police action. From the various paragraphs it would seem as if there had been 673 defaulters, of whom 264 could not be traced, and thirty-one were either in gaol, in other States or dead. Whether these defaulters were among the 1,801 persons whose infections had been notified during the year under review, or whether they included some whose infections had been notified in the previous year, is not stated. In the absence of definite information, it is impossible to ascertain the frequency of failure to enforce continued treatment or even the frequency of endeavours to evade the provisions of the Act.

Mention is made of one instance in which the Crown instituted proceedings against a person other than a registered medical practitioner for attending or treating a person suffering from a venereal disease. The defendant was a Chinese herbalist, but at the time of the issuing of the report the action had not been completed. No other prosecutions for this breach of the Act are mentioned.

Information is given concerning the number of consultations held at the clinics, of the number of specimens submitted to the laboratory for bacteriological and biological examination and of the number of injections of arsenical and mercurial preparations. The number of women treated at the Venereal Diseases Isolation Hospital in South Brisbane was eighty-nine, of whom seventy-two were prostitutes. At the William Street Examining Rooms no less than 883 women were examined. One prostitute was fined two shillings and sixpence for non-attendance at the rooms.

The medical officers attached to the clinics issued 291 certificates of cure during the year. No information is given concerning the standard of cure required. It will be remembered that this subject was discussed at considerable length at the conference recently convened by the Federal Government for the purpose of ascertaining the degree of success of the legislation for the control of venereal diseases.

It is of interest to note that, acting on the authority provided by Section 161 (1) of the *Health Acts, 1900-1917*, the Commissioner ordered a medical examination of twenty-eight persons, including twenty-three women, on account of information concerning a suspected venereal infection. The examination disclosed that twelve females and one male were suffering from venereal disease, while seven females and three males were not suffering from these diseases. Five of the persons could not be traced.

During the four and a half years to March 31, 1922, the Commonwealth Government contributed a sum of £14,285 toward the cost of treatment of venereal disease in Queensland.

Epidemic Polio-Encephalitis.

Reference is made to the outbreak of acute polio-encephalitis which occurred in Brisbane and Ipswich in April, 1922. It will be remembered that this outbreak was discussed at a meeting of the Queensland Branch of the British Medical Association and that the Department of Public Health was represented by Dr. R. W. Telford, then Deputy Commissioner. Dr. Telford sought the opinion of the members as to the desirability of making epidemic polio-encephalitis a notifiable disease. The meeting resolved unanimously that it should be a notifiable disease. Despite this, the disease has not been gazetted as a notifiable disease. Dr. Moore states in the report that "no specimens of an undoubted case were submitted to the Laboratory." In several instances cerebro-spinal fluid from the patients was collected for examination and in one case at least *post mortem* material was available for experimental and diagnostic purposes. It would have been an easy matter, had the Commissioner desired it, to have obtained "specimens" for investigation at the Micro-biological and Pathological Laboratotry. It is stated that the epidemic comprised seventy-five cases with forty-nine deaths. Dr. Moore's definition of the disease as "an acute inflammation of the grey matter of the brain, due to a microorganism," is quite insufficient.

The Control of Sanitation and Foods.

The remainder of the report is devoted to the work of the Chief Sanitary Inspector, the control of foods and drugs, the leprosy lazarette and the activity of the Nurses' Registration Board. The meagre details are supplemented to some extent by appendices in the form of reports by the officers in charge of the special branches. We note that the Department relies on the analysis of samples of milk and the prosecution of vendors of watered milk for safeguarding the milk supply of the people of Queensland. A little clean water added to milk is far less serious than dirt and bacteria. Yet the cleanliness of the supply apparently receives no attention. Dr. Moore calls attention on more than one occasion to disturbance of the routine work of the Department on account of the extra strain caused by the plague outbreak.

Obituary.

BERNARD LOUGHREY.

THE death of Dr. Bernard Loughrey occurred at Hawthorn, Victoria, on October 17, 1922.

Bernard Loughrey was born at Richmond, Victoria, in the year 1857 and as a boy attended the Melbourne Church of England Grammar School. At the close of his school life he matriculated in 1872 and thereupon entered on an academic career which gained him much distinction at the Melbourne University. His faculty for study and the versatility of his intellectual powers may be judged from the fact that he graduated in three schools, taking the degrees of B.A., 1875, B.C.E., 1878, M.A., 1882, M.B., B.S., 1894, M.C.E., 1899.

He followed the profession of engineering as City Surveyor of Wellington, New Zealand, for several years, but returned to Melbourne about the year 1889 in order to enter upon his medical course.

Bernard Loughrey practised in Hawthorn for twenty-six years and as a general practitioner was greatly respected in that district. He was particularly kind and generous to his poorer patients, by whom he was much loved; many instances are known in which he not only helped with advice and treatment, but also gave substantial financial assistance to deserving patients in straitened circumstances. This was done in a very unostentatious way and such quiet charity was characteristic of the man.

Bernard Loughrey never married, but provided a home for his deceased brother's family, towards whom he acted *in loco parentis* since 1891. He gave the children a sound education and a good start in life.

As a colleague he was consistently genial, friendly, strictly honourable in his professional relations with his brother practitioners. He was a well-built man and his erect figure and bluff, hearty greeting will be much missed in his old district of Hawthorn.

Bernard Loughrey was a great patron of the ring and until debarred by illness scarcely missed an opportunity of witnessing a good boxing contest. Clean sport of all kinds appealed to him and another hobby in which he took a keen delight was gardening. He was justly proud of his garden of standard roses.

During his term as a medical student Bernard Loughrey was Secretary of the Melbourne Students' Society, an office to which he brought such energy and enthusiasm that his services were recognized by a life membership conferred on him by the Society.

CARLO FRANCESCHI.

WE regret to record the death of Dr. Carlo Franceschi, which took place at Lismore, New South Wales, on December 11, 1922.

NORMAN EDWARD PACKER.

NEWS has been received in Sydney of the death as the result of a riding accident of Captain Norman Edward Packer, Royal Army Medical Corps. Captain Packer was a Sydney graduate of 1915 and was serving with the army of occupation in the Rhine Province at the time of his death.

WILLIAM HENRY TOMLINS.

WE learn with regret that Dr. William Henry Tomlins, of Alstonville, New South Wales, has died in England.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

AT an adjourned meeting of the Senate of the University, held on December 11, 1922, the degree of Master of Surgery (Ch.M.) was conferred upon DR. S. U. GENTILE *in absentia*.

The following report of the Extension Board for the year 1922 was adopted:

The Annual Report of the University Extension Board shows that the total number of courses given during the year was fifteen, made up of a special post-graduate course and various general courses in the city and suburbs, as well as in the country.

The Post-Graduate Course in Medicine held in January, 1922, was the first of its kind attempted in Sydney and was attended during a period of a fortnight by seventy-seven practitioners.

The courses in the city covered a wide range of subjects, both scientific and literary, amongst the most important being those on organic chemistry, elementary bacteriology, biological science and the life and works of Mollière.

One of the most successful of the courses was that carried out at Killara.

Lectures were given under the auspices of the Board at Bulli, Tamworth, Armidale, Tenterfield, Newcastle, Murwillumbah, Casino, Lismore, Ballina and Helensburgh.

During the coming year the Board, it is hoped, will be able to arrange a series of lectures in Sydney by Professor Mackail, lately Professor of Poetry at Oxford, who is visiting Sydney for the express purpose of giving extension lectures.

The second Post-Graduate Course in Medicine will be held in Sydney in January, 1923, and during the year it is intended to arrange a post-graduate course in engineering.

The following were appointed members of the Board for the ensuing year:

Ex officio Members: THE CHANCELLOR, THE VICE-CHANCELLOR and THE WARDEN AND REGISTRAR.

Members of the Senate: HIS HONOUR JUDGE BACKHOUSE, M.A., PROFESSOR M. W. MACCALLUM, M.A., LL.D., HONOURABLE SIR HENRY BRADDON, K.B.E., M.L.C., and MR. J. NANGLE.

Members of the Teaching Staff: PROFESSOR JOHN READ, M.A., PROFESSOR R. C. MILLS, LL.M. (Melb.), D.Sc. (Econ.), (Lond.), PROFESSOR A. E. MILLS, M.B., Ch.M., PROFESSOR F. A. TODD, B.A., Ph.D., PROFESSOR W. J. WOODHOUSE, M.A., PROFESSOR E. R. HOLME, O.B.E., M.A., PROFESSOR J. P. V. MADSEN, B.A., D.Sc., ACTING-PROFESSOR O. U. VONWILLER, B.Sc., and MR. G. V. PORTUS, M.A., B.Litt..

Unofficial Members: MR. E. S. EDWARDS, M.A., MR. E. B. TAYLOR and MR. J. M. TAYLOR, M.A., LL.B..

Secretary: MR. I. G. MACKAY, C.M.G., D.S.O., B.A..

Correspondence.

INTESTINAL OBSTRUCTION CAUSED BY MECKEL'S DIVERTICULUM.

SIR: A.S. had acute intestinal obstruction caused by Meckel's diverticulum for which an operation was performed. He claims compensation under an accident and sickness policy. No reference is made in the policy to intestinal obstruction. Is the man entitled to compensation under the heading of accident?

Yours, etc.,

JOHN J. HOLLAND.

"A.M.P. Buildings," Perth,
Western Australia, November 22, 1922.

[THE information supplied is insufficient for a definite reply to be given to the question. Assuming that the policy is an ordinary accident and sickness policy, no claim would be entertained unless the disability is the result of a bodily injury caused directly and solely by

violent, accidental, external and visible means. If the intestinal obstruction followed such an external and visible trauma and the Meckel's diverticulum merely rendered the insured susceptible to obstruction of the intestine, he would be entitled to compensation, but evidence would be required of the accidental, external violence. Otherwise he would have no claim. In many accident policies the assurance companies specifically set out that no compensation will be paid in regard to the strangulation of a hernia resulting from external violence when the hernia existed before the trauma. We are unaware of any similar clause in any policy referring to the result of accidental abdominal injury causing intestinal obstruction in the presence of Meckel's diverticulum.—EDITOR.]

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

THE undermentioned have been registered under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:

HENNESSY, KIRKHAM EDWARD, M.B., 1922 (Univ. Sydney), St. John's College, Camperdown.

MACPHERSON, SIR JOHN, M.B., C.M., 1882; M.D., 1896 (Univ. Edin.); F.R.C.P. (Edin.), 1891, 229, Macquarie Street, Sydney.

MURPHY, ALGERNON HAMPDEN, M.B., Ch.M., 1922 (Univ. Sydney), "Simla,' Alice Street, Turramurra.

For Additional Registration.

MCDONNELL, ÆNEAS JOHN, M.D., 1896 (Univ. Sydney), Toowoomba, Queensland.

MACKAY, ERIC ECCLES, M.D., 1922 (Univ. Melbourne), Broken Hill.

NOBLE, RALPH ATHELSTANE, D.P.M., 1922 (Univ. Cambridge), 175, Macquarie Street, Sydney.

NORTH, ALAN LINDSAY, D.O.M.S., R.C.P.S., Eng., 1922, 235, Macquarie Street, Sydney.

NORTH, ROBERT BELL, D.O.M.S., R.C.P.S., Eng., 1921, England.

ROBERTS, JOHN LESLIE, Ch.M., 1922 (Univ. Sydney), Lismore.

Removal of Name from Register of Legally Qualified Medical Practitioners.

THE PRESIDENT AND MEMBERS OF THE NEW SOUTH WALES MEDICAL BOARD certify that FREDERICK SOBIESKI WLADIMIR ZLOTKOWSKI, M.B., Univ. Sydney, 1896, was found guilty of infamous conduct in a professional respect and his name was removed from the Register under Section 9 (*c*) of the *Medical Practitioners Act, 1912*, on the second day of November, 1922.

Books Received.

DISEASES OF WOMEN, by Harry Sturgeon Crossen, M.D., F.A.C.S.; Fifth Edition, revised and enlarged; 1922. St. Louis: C. V. Mosby Company; Crown 4to., pp. xxxii. + 1,005, with 934 engravings, including one colour plate. Price: $10.00.

TYPHUS FEVER: WITH SPECIAL REFERENCE TO THE RUSSIAN EPIDEMICS, by J. M. Mitchell, O.B.E., M.B., Ch.B. (Aberdeen), I. N. Asheshov, M.B., Ch.B. (Saratov), and G. P. N. Richardson, M.B., B.Ch. (Camb.); 1922. London: Baillière, Tindall & Cox; Demy 8vo., pp. 48. Price: 3s. 6d. net.

Medical Appointments Vacant, etc.

FOR announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xviii..

THE UNIVERSITY OF MELBOURNE: Stewart Lecturer and Demonstrator in Pathology.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phœnix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, Saint George's Terrace, Perth	All Contract Practice Appointments in Western Australia
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Diary for the Month.

JAN. 1.—Victorian Branch, B.M.A.: Annual Subscriptions Due.
JAN. 9.—New South Wales Branch, B.M.A.: Council (Quarterly).
JAN. 11.—Victorian Branch, B.M.A.: Council.
JAN. 12.—Queensland Branch, B.M.A.: Council.
JAN. 16.—New South Wales Branch, B.M.A.: Ethics Committee; Executive and Finance Committee.
JAN. 24.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
JAN. 26.—Queensland Branch, B.M.A.: Council.
JAN. 27.—Northern District Medical Association, New South Wales: Glen Innes.
JAN. 31.—Victorian Branch, B.M.A.: Council.
JAN. 31.—Western Medical Association, New South Wales: Orange.
FEB. 2.—Queensland Branch, B.M.A.: Branch.
FEB. 7.—Federal Committee of the British Medical Association in Australia.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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Index to Advertisements

	Page.
AGENTS—	
Backhouse & Goyder	xviii.
Grant, Allan	xix.
Jefferson, Ellis	xix.
Medical Agency (Medical Society of Victoria)	xix.
Payne, A. P.	xix.
Powell, A. J.	xix.
Ramsay & Co.	xviii.
BANKS, TRUSTEES, INSURANCE, ETC.—	
Australian Provincial Assurance Assoc., Ltd.	ii.
Commonwealth Bank of Australia	iv.
Co-operative Assurance Co., Ltd.	v.
Dalgety & Co., Ltd., Motor-Car Insurance	xi.
Permanent Trustee Co. of N.S.W., Ltd.	xiv.
Perpetual Trustee Co. (Ltd.)	viii.
CHEMISTS, ETC.—	
Bryce, Robert, & Co., Pty., Ltd. ("Ciba" Products)	vi.
Denver Chemical Manufacturing Co.	xx.
Elliott Bros., Ltd.	xiii.
Hallam, Ltd.	xviii.
Joubert & Joubert	v.
Musson, G. F. W.	xix.
Parke, Davis & Co.	xxii.
CLOTHING—	
Jenyns Patent Corset Pty.	xiv.
Peapes & Co., Ltd.	vi.
EXCURSIONS, ETC.—	
New South Wales Government Tourist Bureau	viii.
FOODS, ETC.—	
Arnott's Biscuits	xvi.
FURNITURE, ETC.—	
Beard, Watson & Co., Ltd.	xv.
HOSPITALS, ETC.—	
Bay View House Private Mental Hospital	x.
Lynton Private Hospital	xix.
Shalvah Private Hospital	xviii.
INSTRUMENTS—	
Allen & Hanburys (Australasia), Ltd.	i.
Guyatt & Co.	xviii.
Hospital Electrical & Radium, Ltd.	xii.
Thomson, Richard, & Co.	viii.
Watson, W., & Sons, Ltd.	xxi.
MISCELLANEOUS—	
Lever Bros., Ltd.	xii.
MASSAGE, PHYSICAL CULTURE, ETC.—	
Dupain Institute	iv.
MOTOR CARS, OILS, ETC.—	
Adams, Wm., Ltd.	ix.
Gibson, Battle & Co., Ltd.	xix.
Star Batteries, Ltd.	vii.
NURSES—	
Australasian Trained Nurses' Association	xix.
PUBLISHERS, ETC.—	
Baillière, Tindall & Cox	iii.
RUBBER GLOVES—	
Saunders & Co.	vii.
SERA AND VACCINES—	
Commonwealth Serum Laboratories	xvii.
Physiological Products Proprietary	xii.
WINES, ETC.—	
Tooth & Co., Ltd.	ix.

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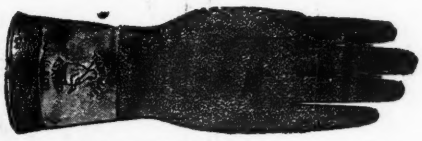

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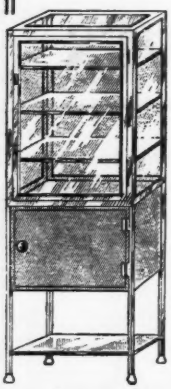

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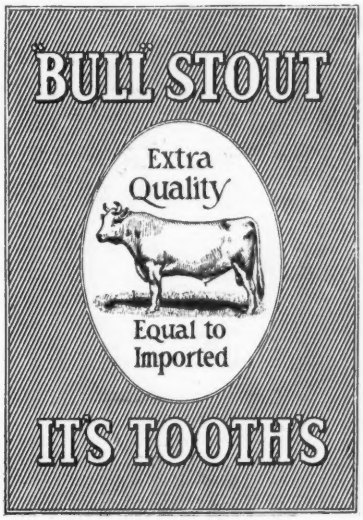

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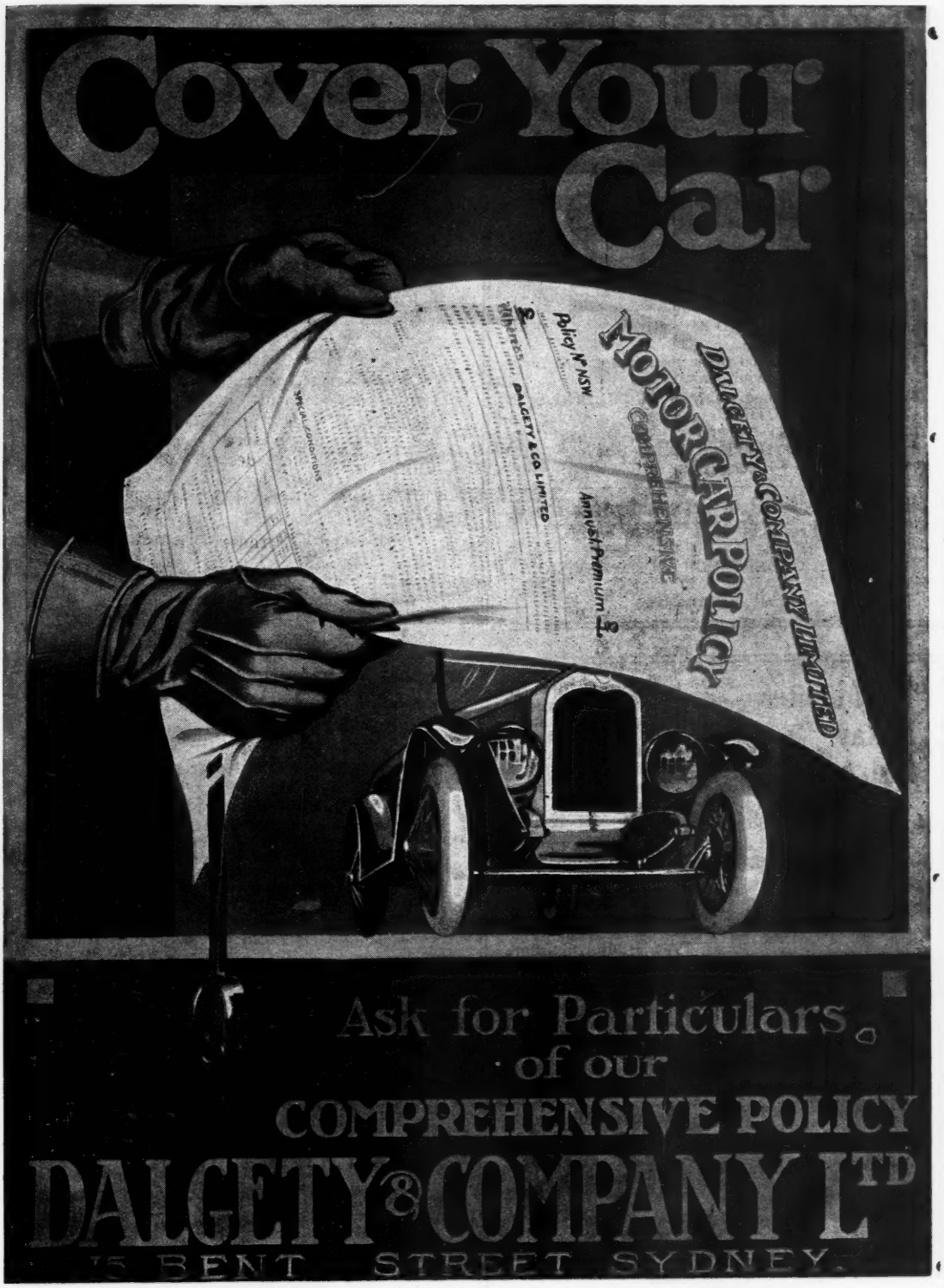
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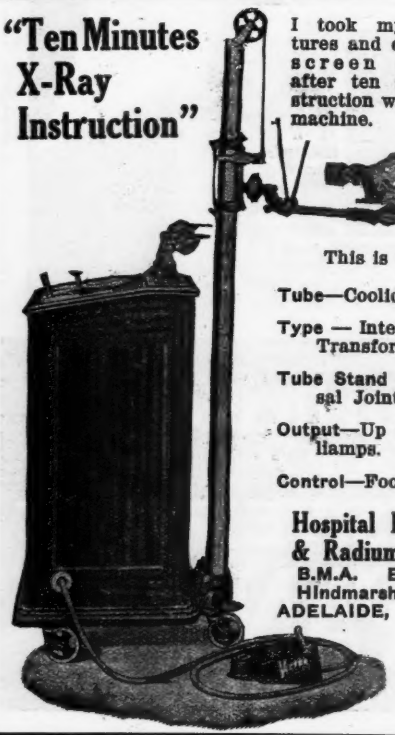

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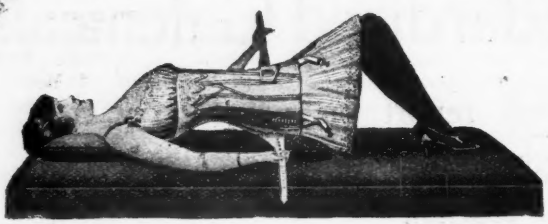

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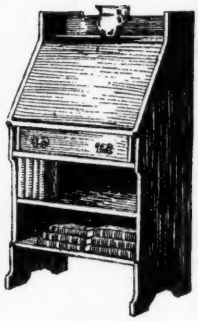

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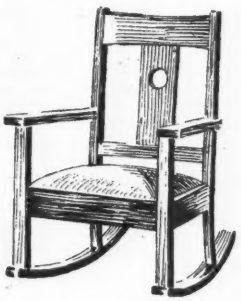

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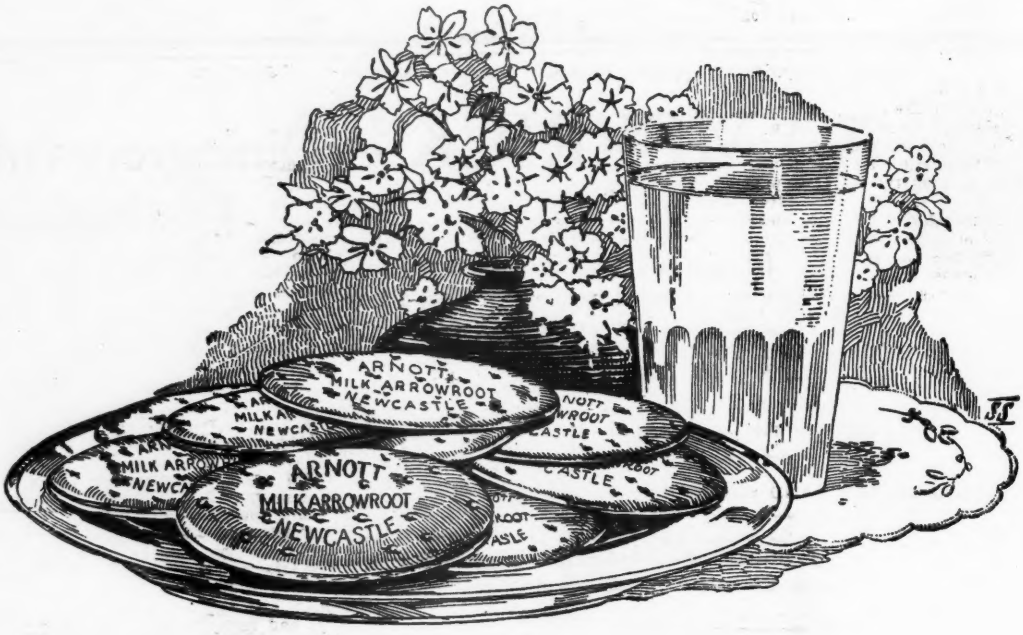

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The Commonwealth Serum Laboratories prepare anti-tetanic serum for the prophylaxis and treatment of the disease. For prophylactic purposes in man and animals 1,000 to 1,500 units of antitoxin should be administered subcutaneously in any of the following circumstances:

(1) After the occurrence of punctured or lacerated wounds contaminated by dirt.

(2) Before operations, where wounds are liable to become so contaminated; as, for example, before castration of horses, especially in districts where tetanus is common.

(3) Before operations when the possibility exists that quiescent tetanus toxin or tetanus spores from former wounds may be present in the tissues to be operated upon. In such cases post-operative tetanus is not uncommon if antitoxin has not been given before the operation.

To get the maximum prophylactic effect a second dose of antitoxin should be given one week after the administration of the first dose.

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Three thousand to eight thousand units should be injected into the spinal theca by the lumbar route, ten thousand units should be given intravenously, ten thousand units should also be given partly intramuscularly and partly subcutaneously, preferably near the site of the wound. A small quantity should be injected into the sheath of the motor nerve of the affected part if this is feasible. This treatment should be repeated after eighteen hours if the patient shows no improvement. After improvement has set in two thousand to four thousand units should be given twice daily for several days.

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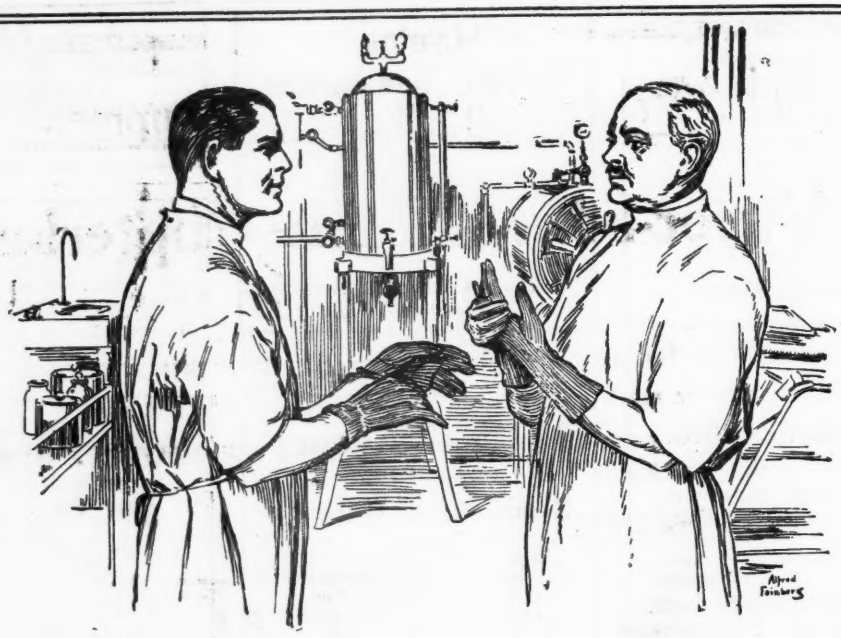

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